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CONTRIBUTIONS TOWARD A KNOWLEDGE OF THE  
INSECT FAUNA OF LOWER CALIFORNIA\*

No. 2

COLEOPTERA: CERAMBYCIDAE

BY

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THE FIRST RECORDS of Cerambycidae from the peninsula of Lower California are to be found in a brief report by LeConte (1861). In this paper he mentions four longicorn species, previously known from southwestern United States, which were present in Lower California material collected by John Xantus de Vesey in 1859-1860. In 1862, Bland described two species (*Eburia ulkei* and *Moneilema subrugosum*) from Xantus material which had found its way into the collections of the Entomological Society of Philadelphia. These were the first Cerambycidae actually described from the peninsula, but LeConte added two more (*Oxoplus cruentus* and *O. marginatus*) within the same year. During the period from 1862 to 1873, a few additional species from the Xantus collections were mentioned by LeConte in scattered references but it was not until the latter year that he made any systematic attempt to describe the new ones. In a paper published at that time he described fifteen new species with type localities recorded as "Cape San Lucas." To these Horn added one or two more in the next few years which he merely cited as from the "Peninsula of Lower California." It was not until the early expeditions of the California Academy of Sciences, beginning in 1888, that definite localities were known

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for Lower California Cerambycidae. In the reports by Horn (1894-95) on the results of these expeditions, fifty-three species were listed from the peninsula, of which eight were described as new.

In 1901, the Cape Region of Lower California was visited by Gustav Beyer, who returned with many interesting Cerambycidae. A few of these were studied by H. C. Fall but the majority ultimately went into the possession of Charles Schaeffer. Each of these men added a few new longicorns to the peninsular list. Their work was followed by that of Casey, who published descriptions of several new Lower California species between 1912 and 1924. However, the Casey specimens had mostly come from either material collected by the Academy expeditions or by Beyer, and his new names mostly involved species which had appeared under other names in previous lists. The most recent additions to the known fauna were made by Linsley (1934) in a report on the collections of the later Academy expeditions. In this paper seven species were added to the faunal list (two described as new). These brought the total number of Cerambycidae known from Lower California and the adjacent islands to seventy-nine.

The present paper is based on the very fine collections made by the Michelbacher-Ross expedition of 1938. In spite of the fact that this expedition traversed the peninsula in the dry season, seventy-three species of Cerambycidae were taken, only six less than the total number previously known from the entire area. Of these species, twenty-four are here described as new, and thirteen are recorded from Lower California for the first time. Thus one-half of the species which they captured were new to the peninsular list. From this fact we must conclude that our knowledge of the cerambycid fauna of Lower California is still very fragmentary.

### DISTRIBUTION

Generalizations on the origin and distribution of the Lower California cerambycid fauna must be purely provisional in the present state of our knowledge. The Cerambycidae of northwestern Mexico are almost unknown and without the possibility of comparing the faunas of the two sides of the Gulf of California, the apparent percentage of endemism in Lower California will be unduly high. However, with this fact in mind a few tentative observations may be made on the basis of the limited material now available for study.

From an analysis of the Cerambycidae it seems quite evident that there are at least four well-marked faunas on the peninsula. Two of these, the Vancouverian and Californian, are poorly represented. The former is now known in Lower California by only three longicorn species (*Prionus californicus*, *Atimia dorsalis*, and *Xylotrechus insignis*). This fauna attains its southernmost point in the San Pedro Martir, and as these mountains are more thoroughly explored other Vancouverian Cerambycidae undoubtedly will be found.

The Californian fauna as represented on the peninsula, occurs on several of the west coast islands and extends southward from San Diego County at least



as far as Rosario along the coast and inland nearly to Punta Prieta. It is also to be found in the San Pedro Martir Mountains. Five of the species recorded below are representative of this fauna, most typical of which are *Ipochus fasciatus* and *Ortholeptura insignis*. One cerambycid species, *Ipochus insularis*, is apparently an insular endemic. It has thus far been found only on Middle San Benito Island.

The largest and most interesting of the peninsular faunas is that of the Cape Region, and a few humid river valleys and oases to the north. Of the Cerambycidae which at present seem to be restricted to this area, twenty-six species appear to have been derived from the Neotropical Fauna, eleven from the Sonoran fauna, and four are so isolated taxonomically that their origin is too obscure for classification. Fourteen species are now known to occur both in the Cape Region and in areas outside of Lower California, and of these, eight are clearly Neotropical, six are Sonoran. Thus it would appear that approximately two-thirds of the Cape Region cerambycid fauna is of Neotropical derivation. This does not mean, however, that the fauna was necessarily received from the south or from across the Gulf of California, although either of these routes might possibly have been available at some time in the past. The existence of a number of Cape Region species (or their closest relatives) in humid pockets on each side of the Gulf of California, as well as along the Colorado River in southern California and Arizona, suggests the possibility that the present Cape fauna may be a remnant of a once more extensive biota which has retreated with increasing aridity. The fact that the Cape fauna contains endemic longicorn genera, some of them isolated taxonomically, further suggests that the fauna is an ancient one.

The portion of Lower California north of the Cape Region is, as would be expected from its climate and topography, almost purely Sonoran (except for the slight penetration of Vancouverian and Californian elements as noted above). Only seven species of Cerambycidae appear to be endemic to this area and with further collecting many of these will probably be found elsewhere. With one exception, they are all of Sonoran derivation. Among the species which occur both in this area and outside of the peninsula, eight are typically Sonoran, one is doubtfully Austro-Riparian, none can be said to be Neotropical. This fauna then, is clearly part of that of the great Mexican plateau and the arid portions of southwestern United States. The known cerambycid fauna of this area would seem to indicate that it is of much more recent origin than that of the Cape Region.

## METHODS

The procedure followed in the present paper has been the systematic listing of all the species of Cerambycidae known to occur in Lower California and the adjacent islands, with a bibliography, distribution, and host summary for each. The source of previous records has been indicated by identical numbers appended to the localities, etc., and the corresponding bibliographical cita-

tions. All new records, unless otherwise indicated, are from the collections of the Michelbacher-Ross Expedition of 1938. The holotypes and allotypes of the new species have been placed in the California Academy of Sciences. Paratypes will be found in the collections of A. E. Michelbacher, E. S. Ross, the California Academy of Sciences, and the writer. The latter is very greatly indebted to Dr. Michelbacher and Dr. Ross for the privilege of studying their very interesting collections, and to the late E. P. Van Duzee and the authorities of the California Academy of Sciences for the opportunity of examining the extensive Lower California series which is in their care. Appreciation is also expressed to Mrs. Frieda M. Abernathy, of Berkeley, California, who prepared the excellent drawings which accompany the paper.

(1) **Stenodontes (Nothopleurus) lobigenis** (Bates)

*Nothopleurus lobigenis* BATES, 1884, Biol. Centr.-Amer., Colept., 5 235<sup>1</sup>.

*Stenodontes (Nothopleurus) lobigenis*, LAMEERE, 1902, Mém. Soc. Ent. Belg., 9: 101; LINSLEY, 1934, Pan-Pac., Ent., 10: 59 (record)<sup>2</sup>; LINSLEY, 1934, Ent. News, 45: 162; LINSLEY and ROSS, 1940, Pan-Pac. Ent., 16: 76 (record).

*Mallodon gnatho* LECONTE (nec White), 1858, Proc. Acad. Nat. Sci. Phila., 1858: 81.

*Mallodon mandibulare* GEMMINGER (nec Fabricius), 1872, Coleopt. Hefte, 10: 254; BATES, 1859, Biol. Centr.-Amer., Coleopt., 5: 10; BATES, 1884, l.c., 5: 234; HORN, 1884, Bull. Brooklyn Ent. Soc., 7: 9; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 337 (record)<sup>3</sup>.

*Stenodontes castaneus* CASEY, 1924, Mem. Coleopt., 11: 225<sup>4</sup>, *n. syn.*

This species varies greatly in size and in the series at hand ranges from 21 to 38 mm. in the female and from 20 to 40 mm. in the male (measurements in both sexes exclusive of mandibles). In the male the mandibles are long, slender, and less strongly surved than in the female and vary from as long as the head to one and three-fourths times as long. The antennae attain the middle of the elytra in the male, about basal one-fourth in the female. In both sexes the metepisterna is narrow, in the male it is arcuate. Although I have not examined the type of *Stenodontes castaneus* Casey, the original description fits the present species so well that there can be little doubt that it is conspecific.

Type locality: Bay of Tehuantepec, Mexico<sup>1</sup>.

Recorded distribution: southwestern United States from Texas to southern California; western Mexico from Oaxaca to Sonora; Gulf of California: Carmen Island<sup>2</sup>; Lower California: San Felipe<sup>4</sup>, Santa Rosa<sup>4</sup>, La Paz<sup>2</sup>, San José del Cabo<sup>3</sup>.

New records: Chapala Dry Lake, July 21; 20 miles north of Comondu, July 2; Comondu, July 22; 15 miles north of El Refugio, July 4; Venancio, July 17; 15 miles west of La Paz, July 5; 3 miles north of San Pedro, July 6; 5 miles west of San Bartolo, July 13; Santiago, July 8; Miraflores, July 8; 8 miles northeast of San Lucas, July 10.

Forty-seven examples of this species (fourteen males) were taken by Michelbacher and Ross, mostly in the southern half of the peninsula, either at light or under loose bark of *Elaphrium*. Apparently the species is equally common in the Cape Region and the desert areas to the north. In addition to the Michel-

bacher and Ross material, I have also examined Lower California specimens from Santa Rosa (Beyer, Leng-Cazier), La Paz (C.A.S.), San José del Cabo (C.A.S., Leng-Cazier), El Taste (Leng-Cazier), and Carmen Island (C.A.S.).

## (2) *Stenodontes (Malloodon) molarius* (Bates)

*Malloodon molarium* BATES, 1879, Biol. Centr.-Amer., Coleopt., 5: 9, pl. 1, f. 10-11<sup>1</sup>; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 337 (record)<sup>2</sup>; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 164.

*Stenodontes (Malloodon) molarius*, LAMEERE, 1902, Mém. Soc. Ent. Belg., 9: 74.

This species is larger than the preceding, and differs in the broad metepisterna and pronounced sexual dimorphism in the sculpturing of the pronotum. It is a tropical and subtropical form, and in Lower California is apparently restricted to the Cape Region. No specimens were captured by Michelbacher and Ross.

Type locality: Mexico<sup>1</sup>.

Recorded distribution: northern South America; Central America; southern and central Mexico; Lower California: San José del Cabo<sup>2</sup>.

Material has been seen from the following localities in Lower California: Santa Rosa (Beyer, Leng-Cazier), and San José del Cabo (C.A.S.).

## (3) *Derobrachus geminatus* LeConte

*Derobrachus geminatus* LECONTE, 1853, Proc. Acad. Nat. Sci. Phila., 1853: 233.

*Braderochus geminatus*, LACORDAIRE, 1869, Gen. Coleopt., 8: 74.

*Derobrachus (Derobrachus) geminatus*, LAMEERE, 1911, Ann. Soc. Ent. Belg., 55: 264.

This well known species, widely distributed throughout southwestern United States and northern Mexico, is apparently represented in Lower California by a single subspecies, *forreri* Bates.

### (3a) *Derobrachus geminatus forreri* (Bates)

*Derobrachus forreri* BATES, 1884, Biol. Centr.-Amer., Colept., 5: 230<sup>1</sup>; SCHAEFFER, 1902, News, 13: 235<sup>2</sup>.

*Derobrachus geminatus forreri*, LAMEERE, 1911, Ann. Ent. Soc. Belg., 15: 265; GROSSBECK, 1912, Bull. Am. Mus. Nat. Hist., 31: 325 (record)<sup>3</sup>; VAN DYKE, 1934, Pan-Pac. Ent., 10: 58 (record)<sup>4</sup>.

*Derobrachus geminatus*, LECONTE, 1861, Proc. Acad. Nat. Sci. Phila., 1861: 335 (record)<sup>5</sup>; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 337 (record)<sup>6</sup>; LINSLEY, 1934, Pan-Pac. Ent., 10: 59 (record)<sup>7</sup>.

This subspecies differs from *D. geminatus geminatus* by the more narrowly separated eyes, more slender antennae, more densely punctate and externally grooved male tibiae, and the bispinose male elytral apices. In the series at hand, each of these characters exhibits some variation, but no individual exhibits all of the characters of the typical form from Texas and Arizona.

Type locality: Presidio, Mexico<sup>1</sup>.

Recorded distribution: northwestern Mexico; Gulf of California: Angel de la Guardia Island<sup>7</sup>; Lower California<sup>2, 5</sup>: Santa Rosalia<sup>4</sup>; San José del Cabo<sup>6</sup>; Cape Region between San José and Triunfo<sup>3</sup>.

New Records: San Fernando, July 31; 10 miles south of Catavina, July 29; 45 miles north of San Ignacio, July 27; 5 miles south of San Miguel, July 20; Comondu, July 22; San Domingo, July 19; 15 miles north of El Refugio, July 4.

Host: "roots of olive trees".

Thirty-nine examples of this subspecies were captured by Michelbacher and Ross between July 4 and July 31. Two specimens (females) were taken under loose bark, the remainder (males) were attracted to light. Nearly all were collected on the return trip, after leaving the Cape Region, and were found from El Refugio north to San Fernando. In addition to the Michelbacher and Ross specimens, I have seen Lower California material from the following localities: Santa Rosalia (C.A.S.), Santa Rosa (Beyer, Leng-Cazier), San José del Cabo (C.A.S.), Cape San Lucas (C.A.S.), and Angel de la Guardia Island (C.A.S.).

#### (4) *Prionus californicus* Motschulsky

*Prionus californicus* MOTSCHULSKY, 1845, Bull. Soc. Nat. Moscou, 18: 89, pl. 2, f. 9; LECONTE, 1852, Jour. Acad. Nat. Sci. Phila., (2) 2: 177; MANNERHEIM, 1852, Bull. Soc. Nat. Moscou, 25: 364; LENG, 1884, Bull. Brooklyn Ent. Soc., 7: 58; BATES, 1892, Trans. Ent. Soc. Lond., 1892: 144 (record); CASEY, 1912, Mem. Coleopt., 3: 242; LAMEERE, 1912, Ann. Soc. Ent. Belg., 56: 242; CASEY, 1924, Mem. Coleopt., 11: 216; LINSLEY, 1938, Pan-Pac. Ent., 14: 105 (syn.).

*Prionus crassicornis* LECONTE, 1851, Jour. Acad. Nat. Sci. Phila., (2) 2: 108; CASEY, 1924, Mem. Coleopt., 11: 216.

*Prionus californicus ineptis* CASEY, 1912, Mem. Coleopt., 3: 242.

*Prionus ineptis*, CASEY, 1924, Mem. Coleopt., 11: 219.

*Prionus humeralis* CASEY, 1924, Mem. Coleopt., 11: 216.

This species has not been previously recorded from Lower California. Three males were taken by Michelbacher and Ross, one of which differs in having thirteen segmented antennae, the last segment of the maxillary palpi widest at the middle, the tarsi more slender, and the elytra rougher. Thus this specimen is even more extreme than the form to which Lameere gave the name *Prionus hornii*. Although the antennae are thirteen segmented, the form is not at all like *P. lecontei* Lameere, from California, which is larger and has very long antennal processes. However, practically all of the forms (species, subspecies, varieties?) which have been named from the *californicus* complex are based upon males, and until females can be definitely associated with them their status cannot be satisfactorily determined. In the opinion of the present writer they will probably prove to be no more than individual variants of a single plastic species.

Type locality: California.

Recorded distribution: Alaska to New Mexico, Sonora, and southern California.

New records: 17 miles south of Ensenada, June 14; 20 miles south of Santo Tomas, July 3.



(5) ***Smodicum pacificum*** Linsley

*Smodicum pacificum* LINSLEY, 1934, Pan-Pac. Ent., 10: 107.

The genus *Smodicum* has not been previously recorded from Lower California. Specimens captured by Michelbacher and Ross represent a new subspecies of *S. pacificum*, described originally from the Tres Marias Islands.

(5a) ***Smodicum pacificum peninsulare*** Linsley, new subspecies

Male: Form elongate, flat, subparallel; color testaceous, shining; vestiture short, very sparse, suberect, yellowish, with a few scattered, long, erect hairs intermixed; punctuation sparse, fine. *Head* at least as wide as pronotum; vertex nearly plane, coarsely punctured, the punctures varying from one to four puncture widths apart, median line feebly impressed; neck with sides a little convex, subparallel or feebly narrowed posteriorly; antennae barely surpassing middle of elytra, scape robust, nearly as long as two following segments together, second segment wider than long, third segment distinctly longer than fourth but a little shorter than fifth segment. *Pronotum* about as broad as long, widest a little behind the middle, octagonal, antero-lateral and postero-lateral angles obtusely rounded; surface moderately finely, sparsely punctured; prosternum with lateral oval depressions dull, scabrous, intercoxal process broad, at least as wide as coxae, expanded and emarginate posteriorly; mesosternum broad, as wide as coxae, emarginate posteriorly. *Elytra* about three times as long as broad; surface sparsely, obscurely, punctured; apices feebly expanded, broadly separately rounded. *Legs* short; femora robust; posterior tarsi with first segment barely longer than two following together. *Abdomen* with sternites shining, finely sparsely punctured; fifth sternite shorter than fourth, transverse, apex emarginate. Length: 7–10 mm.

Female: Form a little less robust than male; antennae not attaining middle of elytra; pronotum feebly wider than long; prosternum scarcely impressed at sides but moderately coarsely punctured; fifth sternite longer than fourth, narrow, rounded at apex. Length: 6–9 mm.

*Holotype*, male (No. 5235, Mus. Calif. Acad. Sci., Ent) and *allotype*, female (No. 5236), and fourteen paratypes (males) from **Miraflores**, July 8, 1938. Additional paratypes: three females, one male, from 5 miles south of Miraflores, July 10, a male and female from Santiago, July 8, and two males from Triunfo, July 13, all collected by Michelbacher and Ross under bark of *Elaphrium*. Three paratypes have been deposited in the collection of the California Academy of Sciences, six in the collection of the writer, the remainder divided between the Michelbacher and Ross collections.

This subspecies differs from the typical form from the Tres Marias by the subparallel or feebly narrowed neck. One male example from Miraflores (not designated as a paratype) disagrees with the others by having the postero-lateral angles of the pronotum distinct, almost tuberculiform, two vague, dark,



longitudinal, pronotal vittae, and the antennae, including the scape, more slender. This is probably an individual variation but may actually represent a different species.

(6) **Atimia dorsalis** LeConte

*Atimia dorsalis* LECONTE, 1869, Ann. Mag. Nat. Hist., (4) : 385<sup>1</sup>; HORN, 1876, Trans. Am. Ent. Soc., 5: 199 (record)<sup>2</sup>; LENG, 1890, Entom. Amer., 6: 10; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>3</sup>; CRAIGHEAD, 1922, Can. Dept. Agr., Bull. 27: 34 (habits)<sup>4</sup>; HARDY, 1926, Rep. Prov. Mus. B. C., 1925: 32, pl. 4, fig. 6; LINSLEY, 1934, Pan-Pac. Ent., 10: 24; LINSLEY, 1936, Pan-Pac. Ent., 12: 199 (habits)<sup>5</sup>; LINSLEY, 1939, Bull. So. Calif. Acad. Sci., 38: 70, pl. 14, fig. 4.

No Lower California examples of *A. dorsalis* have been seen by the writer, but the species is included on the authority of Dr. George Horn. The larvae feed exclusively in cupressaceous (sensu lato) wood, and in southern California are often injurious to ornamental Cypress.

Type locality: "Vancouver's Island"

Recorded distribution: Pacific Slope of North America from British Columbia southward; Lower California: south of San Diego<sup>3</sup>, Guadalupe Island<sup>2</sup>.

Hosts: *Cupressus*, *Juniperus*, etc.<sup>4, 5</sup>

(7) **Styloxus lucanus** LeConte

*Styloxus lucanus* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 240; HAMILTON, 1885, Trans. Am. Ent. Soc., 23: 162; LINSLEY, 1940, Bull. So. Calif. Acad. Sci., 39: 35.

*Styloxus lucanus* was described from the male. The female differs in having slightly longer elytra (not, however, attaining the apex of the abdomen), and antennae that are shorter than the body with the outer segments greatly abbreviated. The fifth abdominal sternite is modified as in *Methia*, and the apical cicatrix of the antennal scape is very prominent in both sexes. In the series captured by Michelbacher and Ross the size varies from 7 to 11 mm.

Type locality: "Cape San Lucas."

New records: 15 miles north of Punta Prieta, July 29; Comondu, July 22; five miles south of San Miguel, July 20; San Domingo, July 19; six miles north of Triunfo, July 15; Triunfo, July 7, 13; five miles west of San Bartolo, July 13.

A fine series of fifty-one examples was captured by Michelbacher and Ross, mostly at light in the Cape Region. The single example from north of Punta Prieta is a dwarfed male.

(8) **Methia debilis** (Horn)

(Plate 4, figs. 1, 2)

*Dysphaga debilis* HORN, 1895, Proc. Calif. Acad. Sci., (2) 5: 246; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 163.

*Methia debilis*, LINSLEY, 1940, Bull. So. Calif. Acad. Sci., 39: 31.

This delicate little species was placed by its described in the genus *Dysphaga* LeConte (= *Tessaropa* Haldeman) but its characters are much more nearly those of *Methia*. Only the female was known to Horn. The male differs mark-

edly in appearance, and is more robust with longer antennae, both the head and thorax piceous, and the elytra about twice as long as broad. In the female, the head is normally dark with the thorax testaceous, but one example in the series at hand has the head testaceous except for the black eyes.

*Type*: No. 73, Calif. Acad. Sci., Ent., ♀.

*Type locality*: San José del Cabo.

*New records*: 20 miles north of Comondú, July 23; 5 miles south of San Miguel, July 20; Venancio, July 17; 15 miles west of La Paz, July 5; 6 miles north of Triunfo, July 15; Triunfo, July 13; 8 miles northeast of Cape San Lucas, July 10.

Eleven specimens (seven male, four female) of this species, hitherto known only by the unique type, were taken by Michelbacher and Ross. All were captured at light, either in the Cape Region, or in humid areas to the north of the Cape Region.

#### (9) *Methia brevis* Fall

*Methia brevis* FALL, 1929, Can. Ent., 61: 58<sup>1</sup>; LINSLEY, 1934, Pan-Pac. Ent., 10: 59 (record)<sup>2</sup>.

In the long series of *Methia* taken by Michelbacher and Ross there are no specimens which appear to be referable to *M. brevis* Fall. However, a single specimen in the California Academy of Sciences from Angeles Bay seems to represent this species. It was compared with the type some years ago by Dr. H. C. Fall and the writer and determined as *brevis* but it is not quite identical with a small series of specimens from San Diego County, California, which I have considered typical of the Fall species.

*Type locality*: San Diego County, California<sup>1</sup>.

*Recorded distribution*: California: San Diego County; Lower California: Angeles Bay<sup>2</sup>.

#### (10) *Methia picta* Linsley, new species

Plate 4, fig. 4

*Male*: Form elongate, slender; color dark brown; vestiture short, fine pale. *Head* a little wider than elytra at base; eyes coarsely granulated, narrowly rounded beneath and separated by less than diameter of third antennal segment, nearly touching on vertex, dorsal and ventral lobes connected posteriorly by two or three rows of facets; vertex rugoso-punctate between eyes; neck coarsely, closely punctate, inter-spaces shining; antennae about twice as long as body, scape moderately slender with a feeble apical tooth, second segment short, transverse, third segment subequal in length to fourth. *Pronotum* a little wider than long, sides rounded, base broadly but shallowly constricted, disk opaque, anterior margin finely, transversely rugulose; surface sparsely clothed with depressed pale hairs; stridulatory plate of metanotum polished, subparallel-sided, without a median ridge. *Elytra* about three and one-half times as long as broad, sides straight; costae feeble, pale; surface finely scabrous, pale testaceous with an oblique black stripe from humeral angle to suture at basal one-third and variable amounts of black along margins and apices;

pubescence short, sparse, regular, subrecumbent; apices narrowly, separately rounded. *Legs* slender, clothed with moderately long, pale, erect hairs; posterior tibiae feebly sinuate; posterior tarsi with first segment equal to the following two together. *Abdomen* shining; sternites distinctly punctured, clothed with moderately long, pale, prostrate hairs. Length: 6–9 mm.

Female: Form more slender; color testaceous, with head and abdomen more or less piceous; eyes separated ventrally by about diameter of antennal scape, above by nearly width of third antennal segment; antennae but little longer than body; fifth abdominal sternite with the usual modification for the genus. Length: 6.5–7 mm.

*Holotype*, male (No. 5237, Mus. Calif. Acad. Sci., Ent.), *allotype* female (No. 5238), and one paratype male, from **Triunfo**, July 13, 1938, collected by Michelbacher and Ross. Additional paratypes include six males and one female from 15 miles west of La Paz, July 5, four males from 20 miles northwest of La Paz, July 16, and six males and one female from 8 miles northeast of Cape San Lucas, July 10, all collected at light by Michelbacher and Ross. Additional material (not designated paratypical) tentatively referred to this species is as follows: five males, 10 miles south of Cataviña, July 29; eight males, 20 miles west of Santa Rosalia, June 24; two males, 20 miles north of Comondu, July 22; and one male, San Domingo, July 19.

This species is related to *M. arizonica* Schaeffer and *M. brevis* Fall, but differs from the former in the feeble apical tooth of the antennal scape, larger size, less strongly rounded pronotum, indistinct elytral costae, and more elongate, differently pigmented elytra, and from the latter by the wider pronotum, distinctly punctured and shining neck, elongate, vittate elytra with the apices narrowly rounded, and the dentate antennal scape. It is also suggestive of *M. lineata* Linsley (Mexico), but may be readily distinguished by the rounded rather than angulate pronotum, feeble pronotal constriction, pale rather than black elytral pubescence, etc.

#### (11) *Methia separata* Linsley, new species

Male: Form moderately elongate, robust; color dark brown, elytra with pale vittae; vestiture pale. *Head* about as wide as elytra at base; eyes coarsely granulated, broadly rounded beneath, equally separated above and below by about the diameter of antennal scape at basal one-third, dorsal and ventral lobes connected posteriorly by three rows of facets; vertex between the eyes opaque, rugosopunctate, neck dullish, rough, obscurely punctured; antennae about twice as long as body, scape moderately robust, apex feebly, obtusely dentate, second segment short, transverse, third and fourth segments subequal in length. *Pronotum* a little wider than long, shorter than head, sides broadly rounded, base and apex scarcely constricted, surface opaque, clothed with long, pale, erect and suberect hairs; stridulatory plate of metanotum smooth, evenly convex, without a median ridge. *Elytra* nearly three times as long as broad, dark brown with a pale longitudinal median vitta, evanescent

at base and broad at apex; surface evenly clothed with short, sparse, subrecumbent, pale hairs; apices narrowly rounded. *Legs* slender; femora clothed with long, pale hairs; posterior tibiae feebly sinuate, clothed with dominantly brownish hairs; posterior tarsi with first segment subequal in length to following two together. *Abdomen* shining; sternites sparsely clothed with long, pale, prostrate hairs. Length: 6.5–7.5 mm.

Female: Form more slender; color testaceous with head and abdomen more or less piceous; eyes separated ventrally by about diameter of antennal scape at middle, a little more widely separated above; antennae but little longer than body; fifth abdominal sternite with the usual modifications in genus. Length: 7.5 mm.

*Holotype*, male (No. 5239, Mus. Calif. Acad. Sci., Ent.), *allotype* female (No. 5240), and two male paratypes, from **San Fernando**, July 13, 1938, collected by Michelbacher and Ross.

*M. separata* is related to *M. picta* Linsley, and the male may be distinguished by the widely separated eyes, sculpturing of neck, longer and erect pubescence of the pronotum, and the different elytral pattern. The females are very similar but in *separata* the eyes are more widely separated above than below.

#### (12) *Methia subarmata* Linsley, new species

Male: Form short, robust; color dark brown, elytra with an elongate-oval, post-median, pale testaceous fascia. *Head* nearly as wide as elytra at base; eyes broadly rounded beneath, more widely separated below than above, separated centrally by about diameter of antennal scape, dorsally by about width of third antennal segment, dorsal and ventral lobes connected posteriorly by a single row of facets; vertex opaque and scabrous behind eyes; neck opaque, rough, rugose; antennae twice as long as body, scape moderately robust with a conspicuous apical tooth, second segment short, transverse, third segment barely longer than fourth, clothed with long cilia along inner margin. *Pronotum* robust, wider than long, sides obtusely rounded, widest behind middle, base not constricted; surface sparsely clothed with long, depressed or suberect, pale hairs; disk opaque. *Elytra* more than three times as long as pronotum, more than twice as long as basal width, surface opaque, scabrous, uniformly, sparsely, finely clothed with short, subrecumbent, pale hairs; apices slightly dehiscent, outer angle rounded. *Legs* slender, clothed with long, pale hairs intermixed with shorter, dark brown hairs near apices of tibiae; posterior tibiae straight; posterior tarsi with first segment equal to following two together. *Abdomen* feebly shining, sternites sparsely clothed with fine, pale hairs. Length: 6.5 mm.

*Holotype*, male (No. 5241, Calif. Acad. Sci., Ent.) from **15 miles north of Punta Prieta**, July 29, 1938, collected by Michelbacher and Ross.

This species is related to *M. brevis* Fall, but differs at once in the very strong apical tooth on the antennal scape, oval elytral pale fascia, indistinct punctuation of the neck, more finely scabrous elytra, and narrower elytral apices.



(13) *Methia pallidipennis* Linsley, new species

Male: Form moderately short, robust; color brown, elytra pale testaceous with short, dark vittae; pubescence pale. *Head* nearly as wide as elytra at base; eyes broadly rounded beneath, much more widely separated below than above, separated beneath by more than the greatest diameter of the antennal scape, above by at least the width of the third antennal segment, dorsal and ventral lobes connected by a double row of facets; vertex opaque and scabrous between the eyes; neck polished, irregularly punctured; antennae about twice as long as body, scape armed with a distinct apical tooth, second segment very short, transverse, third segment barely longer than fourth, densely clothed with long cilia along inner margin. *Pronotum* robust, broader than long, sides swollen at middle, base and apex not constricted; surface opaque, rather densely clothed with long, erect, pale hairs. *Elytra* about three times as long as pronotum, nearly two and one-half times as long as basal width, pale testaceous with a median, longitudinal, dark vitta on each side extending from just anterior to middle to apical one-fourth, a dark sutural stripe at base and at apex, and a vague band along apical one-third of lateral margin; pubescence short, subrecumbent, pale; apices narrowly, separately rounded. *Legs* slender, clothed with long, pale, suberect hairs; posterior tibiae straight; posterior tarsi with first segment a little longer than following two together. *Abdomen* dull, sternites clothed with fine, pale hairs. Length: 7 mm.

*Holotype* male (No. 5242, Mus. Calif. Acad. Sci., Ent.), taken at light at **San Domingo**, July 19, 1938, by A. E. Michelbacher and E. S. Ross.

The elytral pattern, if constant, should enable this species to be very readily recognized. It is perhaps best compared with *M. picta* Linsley which has the eyes more widely separated below than above and the neck shining, but in *picta* the form is more elongate and slender, the elytra are less abbreviated, the pronotum is rounded at the sides, and the posterior tibiae are feebly sinuate.

(14) *Malacopterus tenellus* (Fabricius)

*Callidium tenellum* FABRICIUS, 1801, Syst. Eleuth., 2: 335<sup>1</sup>.

*Malacopterus lineatus* GUERIN, 1844, Icon. regn. anim., Ins., p. 222; Bates, 1879, Biol. Centr.-Amer., Coleopt., 5: 15, p. 3, f. 17; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 166 (syn.); CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 41<sup>2</sup>.

*Malacopterus mexicanus* THOMSON, 1860, Class. Ceramb., p. 248; LACORDAIRE, 1869, Gen. Coleopt., 8: 228, nota.

*Ganimus vittatus* LECONTE, 1873, Smithson. Misc. Coll., XI, 264; 173<sup>3</sup>.

*Malacopterus vittatus*, LECONTE and HORN, 1883, Smithson. Misc. Coll., XXII, 507: 284; LENG, 1884, Bull. Brooklyn Ent. Soc., 7: 115; LENG, 1885, Entom. Amer., I, pl. 2, f. 19.

This widespread species has not been previously recorded from Lower California. In addition to the two examples taken by Michelbacher and Ross I have seen one other peninsular specimen from the San Pedro Martir Mountains, June 8, 1923 (C.A.S.).

Type locality: "America meridionali".



Recorded distribution: South America; Central America; Mexico; California<sup>3</sup>.

New Records: Hamilton Ranch, August 2; San Pedro Martir Mts., June 8, (C.A.S.).

Hosts: *Salix*<sup>2</sup>, *Populus*<sup>2</sup>

Both specimens captured by Michelbacher and Ross were attracted to light.

### (15) *Achryson surinamum* (Linnaeus)

*Cerambyx surinamum* LINNAEUS, 1767, Syst., Nat., ed. XII, p. 632<sup>1</sup>.

*Achryson surinamum*, WHITE, 1855, Cat. Coleopt. Brit. Mus., 8: 298; BATES, 1870, Trans. Ent. Soc. Lond., 1870: 247; LECONTE, 1873, Smithson. Misc. Coll., XI, 265: 300; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 337 (record)<sup>2</sup>; CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 138 (biol.)<sup>3</sup>; LINSLEY and MARTIN, 1933, Ent. News, 44: 180<sup>4</sup>.

*Achryson surinam*, LENG, 1885, Bull. Brooklyn Ent. Soc., 7: 117.

*Stenocorus circumflexus* FABRICIUS, 1787, Mant. Ins., 1: 144.

*Cerambyx circumflexus*, OLIVIER, 1797, Entomologie, IV, 173, pl. 23, f. 182.

*Achryson circumflexum*, SERVILE, 1833, Ann. Soc. Ent. France, 2: 573.

*Cerambyx longicollis* DEGEER, 1775, Mém. Ins., 5: 117, pl. 14, f. 11.

*Stenocorus pallens* FABRICIUS, 1792, Ent. Syst., 1, 2, p. 297.

*Cerambyx surinamensis* OLIVER, 1795, Entomologie, IV, 54, pl. 13, f. 93.

*Achryson surinamensis*, CHEVOLAT, 1862, Ann. Soc. Ent. France, (4) 2: 264; LENG, 1885, Entom. Amer., 1, pl. 2, f. 25.

All of the Lower California examples of this species which have been seen by the writer are of the type with the head and prothorax heavily marked with piceous and the elytral markings conspicuous. In this respect they differ from the form which is common in the Lower Rio Grande Valley of Texas and agree with material at hand from the mountains of southern Arizona and the west coast of Mexico.

Type locality: Surinam<sup>1</sup>.

Recorded distribution: South America: from Argentina northward; Central America; West Indies; Atlantic and southern United States to Arizona; Mexico; Lower California: San José del Cabo<sup>2</sup>.

New Records: San Fernando, July 31; 15 miles north of San Ignacio, June 24; Venancio, July 17; 5 miles south of Miraflores, July 10; Triunfo, July 13; 5 miles west of San Bartolo, July 13; 15 miles west of La Paz, July 5; La Paz, June 28 (Slevin).

Hosts: *Cercidium*<sup>3</sup>, *Prosopis*<sup>3</sup>, *Acacia*<sup>3, 4</sup>, *Pithecolobium*<sup>1</sup>.

### (16) *Hamaticherus mexicanus* Thomson

*Hamaticherus mexicanus* THOMSON, 1860, Class. Ceram., p. 195<sup>1</sup>.

*Hamaticherus mexicanus*, LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 302 (record)<sup>2</sup>; BATES, 1884, Biol. Centr.-Amer., Coleopt., 5: 241; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 337 (record)<sup>3</sup>.

*Hamaticherus castaneus* BATES, 1870, Trans. Ent. Soc. Lond., 1870: 250, f.n.; BATES, 1872, Trans. Ent. Soc. Lond., 1872: 171; BATES, 1879, Biol. Centr.-Amer., Coleopt., 5: 16, pl. 3, f. 2.

This tropical species was first reported from Lower California by LeConte, later by Horn. I have seen no specimens from this region, although the species is not rare in southern Mexico.

Type locality : Mexico<sup>1</sup>.

Recorded distribution : South America : Brazil ; Central America ; Mexico ; Lower California<sup>2</sup> ; Cape San Lucas<sup>3</sup>.

### (17) *Gnaphalodes trachyderoides* Thomson

*Gnaphalodes trachyderoides* THOMSON, 1860, Class. Ceram., p. 236<sup>1</sup> ; LECONTE, 1873, Smithsonian. Misc. Coll., XI, 264 : 203, f.n.<sup>2</sup> ; BATES, 1879, Biol. Centr. Amer. Coleopt., 5 : 17 : LENG, 1885, Entom. Amer., 1 : 28, pl. 2, f. 32 ; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4 : 337 (record)<sup>3</sup> ; LINSLEY and MARTIN, 1933, Ent. News, 44 : 180 (record)<sup>4</sup>.

*Gnaphalodes trachyderoides* var. *inermis* BATES, 1884, Biol. Centr.-Amer., Coleopt., 5 : 243.

This species was recorded from Lower California by Horn. It is occasionally abundant in the Lower Rio Grande Valley of Texas and along the west coast of Mexico, where it occurs on leguminose trees.

Type locality : Mexico<sup>1</sup>.

Recorded distribution : Central America ; Mexico ; Texas<sup>2, 4</sup> ; Lower California : Cape San Lucas<sup>3</sup>.

Host : *Acacia*<sup>4</sup>.

### (18) *Osmidus guttatus* LeConte

(Plate 5, fig. 9)

*Osmidus guttatus* LECONTE, 1873, Smithsonian. Misc. Coll., XI, 246 : 178<sup>1</sup> ; LENG, 1885, Bull. Brooklyn Ent. Soc., 7 : 119 ; LENG, 1886, Entom. Amer., I, pl. 2, f. 29 ; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4 : 337 (record)<sup>2</sup> ; LINSLEY, 1938, Pan-Pac. Ent., 14 : 106 (syn.).

*Osmidus obscurella* CASEY, 1924, Mem. Coleopt., 11 : 255<sup>3</sup>.

*Osmidus vestitus* CASEY, 1924, Mem. Coleopt., 11 : 255<sup>4</sup>.

The series of specimens brought back by Ross and Michelbacher exhibits a great range of variation in number and size of the dark elytral punctures. One male example has less than a dozen such punctures on each elytron, a female about seventy-five.

Type locality : Cape San Lucas<sup>1</sup>.

Recorded distribution : Arizona<sup>2, 4</sup> ; Lower California : San José del Cabo<sup>2</sup> ; Cape San Lucas<sup>1</sup>.

New records : 25 miles south of Santa Rosalia, July 25 ; Coyote Cove, Conception Bay, June 29 ; Venancio, July 17 ; Miraflores, July 8 ; 15 miles west of La Paz, July 5.

Fifteen examples were taken by Ross and Michelbacher, all attracted to light, at the above localities, mostly along the southern half of the east coast of the peninsula.

### (19) *Eburia ulkei* Bland

*Eburia? ulkei* BLAND, 1862, Proc. Ent. Soc. Phila., 1 : 270<sup>1</sup>.

*Eburia ulkei*, LECONTE, 1873, Smithsonian. Misc. Coll., XI, 264 : 179 ; BATES, 1884, Biol. Centr.-Amer., Coleopt., 5 : 244 (record)<sup>2</sup> ; LENG, 1885, Entom. Amer., 1 : 28 ; HORN, 1895, Proc. Calif. Acad. Sci., (2) 4 : 337 (record)<sup>3</sup> ; GROSSBECK, 1912, Bull. Am. Mus. Nat. Hist., 31 : 325 (record)<sup>4</sup>.

Ten examples of this peculiar species were captured at light by Michelbacher and Ross.

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: Mexico: Ventanas<sup>2</sup>; Lower California: Cape San Lucas<sup>3</sup>, Cape Region between San José and Triunfo<sup>4</sup>.

New records: San José del Cabo (C.A.S.); 25 miles south of Santa Rosalia, July 25; 20 miles north of Comondu, July 23; Agua Caliente (Slevin).

Host: *Quercus* (Slevin).

Mexican examples in the collection of the California Academy of Sciences are from Venedio, Los Mochis, and Mazatlan.

## (20) *Eburia nigrovittata* Bates

(Plate 5, fig. 8)

*Eburia nigrovittata* BATES, 1884, Biol. Centr.-Amer., Coleopt., 5: 246<sup>1</sup>; LINSLEY, 1935, Trans. Am. Ent. Soc., 51: 73 (record)<sup>2</sup>.

*Eburia conspersa* HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 399<sup>3</sup>; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 166. (*New synonymy*).

*Eburia conspersa* Horn appears to be identical with *E. nigrovittata* Bates. There is, however, considerable variation in the species. In most examples the pronotum is feebly tuberculate at the sides as described by Bates and Horn, but in a female from Tejupilco, Mexico, the lateral tubercles are strong. The elytral apices are rounded externally with a strong sutural spine in the type of *conspersa* (No. 63, Calif. Acad. Sci., Ent., ♀) and in most of the other specimens which I have seen, but in one of the examples captured by Michelbacher and Ross they are emarginate with the outer angle dentiform, and in a male from Venedio, Sinaloa (C.A.S.) they are simply truncate. The latter sex differs from the female by having very long antennae, fully twice as long as the body, less strongly impressed elytral foveae, and an emarginate fifth abdominal sternite.

Type locality: Tres Marias Islands<sup>1</sup>.

Recorded distribution: Mexico: Tres Marias Islands<sup>1</sup>, District of Temescal-tepec<sup>2</sup>; Lower California: San José del Cabo<sup>3</sup>.

New records: Santiago, July 8; 10 miles southwest of San José del Cabo, July 9.

The Michelbacher and Ross specimens were taken at light and were found in the Cape Region.

## (21) *Eustromula validum* (LeConte)

*Elaphidion validum* LECONTE, 1858, Proc. Acad. Nat. Sci. Phila., 1858: 82<sup>1</sup>; LECONTE, 1861, Proc. Acad. Nat. Sci. Phila., 1861: 335 (record)<sup>2</sup>.

*Eustroma validum*, LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 186<sup>3</sup>; BATES, 1884, Biol. Centr.-Amer., Coleopt., 5: 248 (record)<sup>4</sup>; LENG, 1885, Entom. Amer., 1: 133, pl. 3, f. 6; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>5</sup>; CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 69<sup>6</sup>.

*Eustromula validum*, COCKERELL, 1906, Ent. News, 17: 242; LINSLEY, 1934, Pan-Pac. Ent., 10: 59 (record)<sup>7</sup>; LINSLEY, 1936, Ann. Ent. Soc. Am., 29: 463 (syn.).

*Anoplum huachucae* CASEY, 1924, Mem. Coleopt., 11: 245<sup>8</sup>.

This species was taken at light at nearly every camp made by Michelbacher and Ross where the evening temperatures were high enough for flight of insects. However, not more than four specimens were captured in any one night although as a usual practice the light collecting extended over several hours.

Type locality: Texas<sup>1</sup>.

Recorded distribution: southwestern United States: Texas<sup>1</sup>, Arizona<sup>3, 8</sup>, southern California<sup>5</sup>; Mexico: Presidio<sup>4</sup>; Gulf of California: Monserrate Island<sup>7</sup>; Lower California<sup>2</sup>: San José del Cabo<sup>5</sup>.

New Records: San Fernando, July 31; 10 miles south of Cataviña, July 29; San Miguel, July 3; 5 miles south of San Miguel, July 20; 20 miles north of Comondu, July 2; Comondu, July 22; San Domingo, July 19; 15 miles north of El Refugio, July 4; Venancio, July 17; 20 miles northwest of La Paz, July 16; Trunfo, July 7; 15 miles west of La Paz, July 5; 3 miles north of San Pedro, July 6; San Pedro (C.A.S.); 5 miles west of San Bartolo, July 13; Santiago, July 8; Miraflores, July 10.

Hosts: *Prosopis*<sup>6</sup>, *Parkinsonia*<sup>6</sup>.

## (22) *Aneflus protensus* (LeConte)

*Elaphidion protensum* LECONTE, 1858, Proc. Acad. Nat. Sci. Phila., 1858: 82<sup>1</sup>.

*Aneflus protensus*, LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 185<sup>2</sup>; LENG, 1885, Entom.

Amer., 1: 34, pl. 3, f. 5; HORN, 1885, Entom. Amer., 1: 131; HORN, 1894, Proc. Calif.

Acad. Sci., (2) 4: 338 (record)<sup>3</sup>; LINSLEY, 1936, Ann. Ent. Soc. Am., 29: 470<sup>4</sup>.

*Aneflus cochisensis* CASEY, 1912, Mem. Colept., 3: 296<sup>5</sup>.

This species was recorded from Lower California by Horn but specimens from the region have not been seen by the writer. In Arizona and Texas it is often attracted to light in large numbers.

Type locality: Sonora<sup>1</sup>.

Recorded distribution: southwestern United States: Texas<sup>4</sup>, Arizona<sup>2, 5</sup>, southern California<sup>4</sup>; Mexico: Sonora<sup>1</sup>; Lower California: El Chinche<sup>3</sup>.

Host: *Prosopis*.

## (23) *Aneflus prolixus* LeConte

*Aneflus prolixus* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 203<sup>1</sup>; LENG, 1885, Entom.

Amer., 1: 34; HORN, 1885, Entom. Amer., 1: 131; HORN, 1894, Proc. Calif. Acad. Sci.,

(2) 4: 338 (record)<sup>2</sup>; LINSLEY, 1936, Ann. Ent. Soc. Am., 29: 470<sup>3</sup>.

*Aneflus fisheri* KNULL, 1934, Ohio Jour. Sci., 34: 335<sup>4</sup>.

This species may be readily distinguished from the preceding by the shorter antennae, which do not attain the apex of the body in either sex, the small antennal spines, the bituberculate disk of the pronotum, and the small, round, denuded spots on the elytra.

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: southwestern United States: Texas<sup>3</sup>, New Mexico<sup>4</sup>, Arizona<sup>3</sup>; Lower California: Cape San Lucas<sup>2</sup>.

New records: 6 miles north of Triunfo, July 15; Triunfo, July 7 and 13; 20 miles north of La Paz, July 16,

Nine specimens were taken by Michelbacher and Ross, all captured at light in the Cape Region.

(24) **Aneflus calvatus** Horn

*Aneflus calvatus* HORN, 1885, Entom. Amer., 1: 132<sup>1</sup>; LINSLEY, 1936, Ann. Ent. Soc. Am., 29: 471<sup>2</sup>.

This species may be readily known by the robust form, dark brownish color, broad pronotum, feeble elytral spines, and the very sparse, inconspicuous pubescence.

Type locality: Arizona<sup>1</sup>.

Recorded distribution: Arizona<sup>1, 2</sup>, southern California<sup>2</sup>.

New records: Mesquital, July 28; 45 miles north of San Ignacio, July 27; 15 miles north of San Ignacio, July 26.

Five examples were taken by Michelbacher and Ross, agreeing perfectly with typical specimens from Arizona and southern California. This is the first Lower California record for the species.

(25) **Aneflomorpha imbellis** Casey

*Aneflomorpha imbellis* CASEY, 1914, Mem. Coleopt., 5: 363<sup>1</sup>; LINSLEY, 1936, Ann. Ent. Soc. Am., 29: 474<sup>2</sup>.

This species may be readily recognized by the form and sculpture of the pronotum, unarmed antennae, and unispinose elytral apices with the outer angle evenly rounded. It has not been previously recorded from Lower California.

Type locality: San Diego, California<sup>1</sup>.

Recorded distribution: southern California: San Diego Co.<sup>1</sup>, Orange Co.<sup>2</sup>; Arizona<sup>2</sup>.

New records: 20 miles south of Santo Tomas, August 3; Hamilton Ranch, August 2; Comondu, July 22.

Three specimens were taken by Michelbacher and Ross, attracted to light in the northern part of the Peninsula.

(26) **Aneflomorpha australis** Linsley, new species

(Plate 5, fig. 7)

Male: Form elongate, subcylindrical; color piceous, vestiture short, fine, pale, recumbent. *Head* nearly as wide as elytra at base; frons and vertex irregularly, confluent punctured, neck more coarsely, distinctly punctured, the punctures adjacent but not confluent, interspaces shining; antennae about one and one-fourth times as long as body, segments three to five carinate, three to seven very sparsely ciliate on inner side, three to eight spinose at apex, spine of third segment moderate, those of following segments gradually diminishing in size, scape robust, sparsely pubescent, coarsely, closely punctured, the punctures separated by less than the diameter of a single puncture, second segment longer than broad, sparsely pubescent, segments three to eleven very



minutely punctured, densely clothed with very short, fine, obscure, recumbent pubescence, third segment about five times as long as second, fourth segment about four-fifths as long as third, fifth segment barely longer than fourth, segments five to ten subequal, the eleventh segment nearly one and one-half times as long as the tenth. *Pronotum* barely wider than long, sides broadly rounded, base broadly constricted, apex narrowly so; surface dull, coarsely, closely, rugosely punctured, clothed with short, fine, obscure, pale, recumbent pubescence, disk with a short, polished, median vitta; prosternum broadly, transversely depressed at middle, anterior margin polished, transversely wrinkled, clothed with a few, erect, scattered, pale hairs, remaining surface dullish, punctation and pubescence similar to that of pronotum; metasternum dull, very finely, closely punctured, clothed with fine, short, pale, recumbent pubescence; metepisterna linear, sides subparallel; scutellum triangular, finely punctured and pubescent. *Elytra* about three times as long as basal breadth; surface moderately coarsely punctured at base where the punctures are from less than one to one puncture width apart, becoming gradually finer posteriorly, disappearing about middle, interspaces and remaining surface feebly shining, micropunctate; apices bispinose. *Legs* slender; femora closely punctured, the punctures fine basally, becoming coarse and more or less confluent apically; surface clothed with fine, short, pale, recumbent hairs, with scattered, longer, suberect, fine hairs intermixed; intermediate and posterior tibiae carinate; posterior tarsi narrow, first segment a little longer than the following two together. *Abdomen* dullish, sternites finely, closely punctured, clothed with fine, short pale, recumbent hairs; first sternite elongate, intercoxal process triangular, fifth sternite emarginate at apex. Length: 15 mm.

*Holotype*, male (No. 5243, Mus. Calif. Acad. Sci., Ent.) from **six miles north of Triunfo**, July 15, 1938, collected at light by Michelbacher and Ross.

This very distinct species is suggestive of *A. duncani* Linsley and *A. lengi* (Schaeffer), with both of which it agrees in the dark integument. From the former it differs in the feebly ciliate antennae with segments three to seven spinose at apex, and the finely punctured abdominal sternites which are clothed with fine, recumbent, white hairs. It may be distinguished from *A. lengi* by the short pronotum which is a little wider than long, with the sides rounded and no trace of smooth spaces on each side of disk, the fine punctured metasternum, finely, densely punctured abdominal sternites, and the strongly bispinose elytral apices.

(27) ***Aneflomorpha rosaliae* Linsley, new species**

Female: Form elongate, subcylindrical; color brown; vestiture moderately sparse, coarse, recumbent, white; integument coarsely punctured. *Head* narrower than pronotum at middle, very coarsely, closely punctured; antennae attaining apical one-fifth of elytra, segments three to six spinose at apex, feebly carinate, ciliate along inner margin, spine on third segment robust, acute, nearly one-half as long as fourth segment, spine on fourth segment a

little more than one-fourth as long as fifth segment, fourth segment subequal in length to fifth, a little shorter than third segment. *Pronotum* slightly longer than broad, sides convex, scarcely constricted at base or apex, apex a little wider than base; surface very coarsely, confluent punctured, punctures with posterior margins usually entire, posterior disk with a median, longitudinal, polished, impunctate line; prosternum coarsely punctured, sparsely clothed with depressed white hairs; metasternum moderately coarsely, shallowly punctured, sparsely clothed with depressed white hairs; metepisterna more finely punctured than mesosternum, more densely clothed with prostrate hairs. *Elytra* more than three times as long as broad, surface coarsely, distinctly punctured, interspaces shining, punctures becoming a little more shallow, less close, apically; vestiture regular, depressed, white; apices feebly emarginate, the angles scarcely dentiform. *Legs* slender, clothed with suberect, white hairs; femora moderately closely but shallowly punctured; posterior tarsi with first segment shorter than following two together. *Abdomen* shining, punctures moderately large but shallow, indistinct; fifth sternite broadly rotundate-truncate at apex. Length: 15 mm.

*Holotype*, female (No. 5244, Mus. Calif. Acad. Sci., Ent.), from **twenty-five miles south of Santa Rosalia**, July 25, 1938, collected at light by E. S. Ross and A. E. Michelbacher.

This species has the aspect of *Aneflomorpha* and agrees with that genus in the type of pubescence and basally carinate antennae. The spine on the third antennal segment, however, is unusually long and closely approximates that of *Anepsyra*. Apparently it is related to *Aneflomorpha texana* Linsley and *A. seminuda* Casey, but in addition to the longer antennal spines on segments three to five, *A. rosaliae* differs in having a short spine on the sixth segment, carinae on segments three to six inclusive, and a more coarsely punctured abdomen.

#### (28) *Anepsyra volitans* (LeConte)

*Aneflus volitans* LeConte, 1873, Smithson. Misc. Coll., XI, 264: 186<sup>1</sup>; LEng, 1885, Entom. Amer., 1: 34; Horn, 1885, Entom. Amer., 1: 131; Horn, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>2</sup>.

*Anepsyra volitans*, Casey, 1912, Mem. Coleopt., 3: 293.

The series of seventy-three examples of this species captured by Michelbacher and Ross (with the exception of seven examples from San Domingo which are dark brown) is uniformly reddish brown in color and ranges in size from 8 to 11 mm. The spine on the third antennal segment varies in length from two-thirds as long as to subequal to the fourth segment and the elytral apices may be feebly or distinctly emarginate but are never spinose. Possibly more than one species is included in the series.

Type locality: "Cape San Lucas"<sup>1</sup>

Recorded distribution: Lower California: Cape San Lucas<sup>1</sup>, San José del Cabo<sup>2</sup>.

New records: 25 miles south of Santa Rosalia, July 25; Coyote Cove, Concepcion Bay, July 9; 20 miles north of Comondú, July 23; 5 miles south of San Miguel, July 20; San Domingo, July 19; 6 miles north of Triunfo, July 15; Triunfo, July 7, July 13; 5 miles south of Miraflores, July 10.

(29) *Anepsyra grandicollis* Linsley, new species

Female: Form elongate; color brown; vestiture long, pale, suberect; integument coarsely punctured with interspaces shining. *Head* narrower than pronotum at middle; vertex and neck moderately coarsely but irregularly punctured, sparsely clothed with erect, pale hairs; antennae short, scarcely surpassing middle of elytra, segments not evidently carinate, segments one to three densely ciliate, segments four to eight densely, nine to eleven sparsely, ciliate along inner margin, third segment about one-fifth longer than fourth, spine very stout, blunt, about as long as fourth segment, fourth segment a little shorter than fifth, spine nearly one-half as long as fifth segment, spine on fifth segment about two-thirds as long as that of fourth segment. *Pronotum* but little longer than broad, sides broadly rounded, base and apex constricted, disk very coarsely, sparsely punctured except for an irregular, median longitudinal, polished line, pubescence long, coarse, erect, white; prosternum less coarsely, less regularly punctured than pronotum, anterior margin transversely rugose; metasternum moderately coarsely, shallowly punctured at middle, more finely at sides; metepisterna more finely, less conspicuously punctured than metasternum. *Elytra* about three times as long as broad, surface coarsely punctured, clothed with erect and suberect pale hairs, basal punctures close, a little less coarse than those of pronotum, becoming finer, sparser apically; apices feebly emarginate, sutural angle feebly dentiform. *Legs* slender, clothed with long, pale, suberect hairs; femora moderately coarsely, closely punctured; posterior tarsi with first segment shorter than following two together. *Abdomen* shining, shallowly, sparsely, indistinctly punctured, clothed with long, suberect or depressed hairs; fifth sternite broadly truncate at apex. Length: 11.5 mm.

*Holotype*, female (No. 5245, Mus. Calif. Acad. Sci., Ent.), and one paratype female (collection of writer), from **25 miles south of Santa Rosalia**, July 25, 1938, captured at light by A. E. Michelbacher and E. S. Ross.

This species is related to *Anepsyra volitans* LeConte, but differs in the larger size, more robust pronotum which is scarcely longer than wide, short antennae (female) which barely surpass the middle of the elytra, more abundant pubescence, and the stronger spine on the fifth antennal segment (two-thirds as long as that of fourth segment).

(30) *Anelaphus brevidens* (Schaeffer)

*Elaphidion brevidens* SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 333<sup>1</sup>.

Specimens captured by Michelbacher and Ross exhibit some variation in the density of the yellowish pubescence. In the more sparsely pubescent indi-

viduals the integument shows and the insect has a much darker appearance. The species was taken at light by Michelbacher and Ross at three localities on the Magdalena Plain. Schaeffer has recorded it from the Cape Region.

Type locality: Huachuca Mts., Arizona<sup>1</sup>.

Recorded distribution: Southern Arizona; Lower California: Santa Rosa<sup>1</sup>, El Taste<sup>1</sup>.

New records: 5 miles south of San Miguel, July 20; San Domingo, July 19; 15 miles north of El Refugio, July 4.

(31) **Anelaphus punctatus** (LeConte)

*Elaphidion punctatum* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 185<sup>1</sup>; LENG, 1885,

Entom. Amer., 1: 32; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>1</sup>.

*Anoplum punctatum*, LENG, 1920, Catal. Coleopt. N. Am., p. 269.

The pubescence in this species is intermixed with a few flying hairs, the elytral apices are rounded, and the legs are very obscurely punctured. The outer antennal segments in both sexes are flattened, but narrow in the male, slightly expanded in the female. The pronotal punctation is coarse with the punctures more or less contiguous except for a smooth median vitta.

Type locality: "Cape San Lucas"<sup>1</sup>.

New records: 25 miles south of Santa Rosalia, July 25; 20 miles north of Comondu, July 2; San Domingo, July 19; 6 miles north of Triunfo, July 15; Santiago, July 8; and 5 miles south of Miraflores, July 10.

Eight examples were taken by Michelbacher and Ross. All were captured at light.

(32) **Anelaphus subdepressus** (Schaeffer)

*Elaphidion subdepressum* SCHAEFFER, 1904, Jour. N. Y. Ent. Soc. 12: 222<sup>1</sup>.

The outer antennal segments in this and the following species are often flattened and produced externally, convex above, suggesting *Aneflus*. The sexual differences in the punctation of the prosternum are similar to those observable in many species of *Stenosphenus*. In the series of ten specimens taken at various localities by Michelbacher and Ross, the pubescent fasciae of the elytra show some variation. In one example the mid-elytral fascia is reduced to a thread-like wavy line, in others the subapical spots are lacking. The pronotum does not have a polished median elevation in either sex and thus the species is not quite typical of *Anelaphus*. The alveolate type of pronotal sculpture is suggestive of *Anoplomorpha*, but the type of pubescence excludes it from that genus. The species is one of a group of several occurring in Mexico and Central America whose generic status remains to be clarified. At the present time they appear in the catalogues under *Elaphidion*, *Hypermallus*, etc.

Type locality: San Felipe, Lower California<sup>1</sup>.

New records: 15 miles north of San Ignacio, July 26; San Domingo, July 19; 15 miles north of El Refugio, July 4; Venancio, July 17; 20 miles northwest of La Paz, July 16; 15 miles west of La Paz, July 5; 10 miles southwest of San José del Cabo, July 9.



All of the above specimens were taken at light, mainly in the central and southern portion of the peninsula.

(33) *Anelaphus submoestus* Linsley, new species

Male: Form robust; color piceous; integument shining, coarsely punctured; pubescence sparse, coarse, pale. *Head* narrower than pronotum at middle; vertex and neck coarsely, subcontiguously, somewhat irregularly punctured, subglabrous; antennae a little longer than the body, segments three to seven spinose at apex, spine on third segment at most only one-third as long as fourth segment, those of following segments gradually diminishing in length, scape moderately robust, coarsely punctured, third segment scarcely more than three times as long as second, fourth segment a little shorter than third, fifth segment distinctly longer than third, remaining segments decreasing gradually in length to apex. *Pronotum* nearly one and one-fifth times as broad as long, sides broadly rounded, base and apex not noticeably constricted; surface very coarsely punctured, the punctures contiguous and subcontiguous with a vague, median, longitudinal, impunctate line on posterior disk; vestiture sparse, coarse, suberect; prosternum coarsely, contiguously punctured, sparsely pubescent; metasternum and metepisterna coarsely, shallowly punctured, sparsely clothed with suberect pale hairs. *Legs* moderately robust, coarsely, closely punctured, sparsely clothed with suberect pale hairs. *Elytra* coarsely punctured, the punctures separated by one or two puncture diameters in basal area, becoming smaller, sparser apically; surface sparsely clothed with suberect pale hairs; apices subtruncate. *Abdomen* sparsely, irregularly punctured, sparsely clothed with suberect pale hairs; fifth sternite broadly rounded at apex. Length: 9.5–11 mm.

Female: Antennae not attaining apices of elytra. Length: 13 mm.

*Holotype*, male (No. 5246, Mus. Calif. Acad. Sci., Ent.) from **25 miles south of Santa Rosalia**, July 25, 1938, *allotype*, female (No. 5247, Mus. Calif. Acad. Sci., Ent.) from **20 miles north of Comondú**, July 23, 1938, and two male paratypes, one from the type locality, the other from 15 miles north of Punta Prieta, July 29, 1938. All four specimens were captured by Michelbacher and Ross at light. One paratype will be retained in the collection of the writer, the other returned to the collectors.

*Anelaphus submoestus* runs near *A. moestus* (LeConte), but may be distinguished at once by having the fifth segment of the antennae longer than the third, very much coarser punctation on the head, pronotum, and legs, more sparsely pubescent elytra and legs, etc.

(34) *Anelaphus michelbacheri* Linsley, new species

Female: Form elongate, subcylindrical; color piceous; integument coarsely punctured, interspaces shining; vestiture coarse; suberect or depressed, pale. *Head* narrower than pronotum at middle; vertex between eyes very coarsely, subcontiguously punctured, neck less coarsely but contiguously



punctured; antennae attaining apical one-fourth of elytra, segments three to five armed with a short spine at apex, scape coarsely punctured, third segment a little more than three times as long as second, fourth segment slightly longer than third, fifth segment distinctly longer than either third or fourth. *Pronotum* slightly wider than long, sides obtusely rounded, base shallowly, apex narrowly but distinctly, constricted; surface coarsely, contiguously punctured, sparsely clothed with depressed pale hairs interspersed with a few longer, erect, scattered setae; scutellum broader than long, densely clothed with white pubescence; prosternum punctured more coarsely and less closely and regularly than pronotum; metasternum moderately coarsely, closely punctured. *Legs* slender, clothed with short, depressed, pale hairs; femora moderately coarsely, closely punctured. *Elytra* nearly three times as long as broad; surface coarsely, closely, subcontiguously punctured, uniformly sparsely clothed with coarse, depressed, pale hairs; apices rounded. *Abdomen* dull, shallowly and indistinctly punctured, sparsely clothed with depressed pale hairs which are finer and shorter than those of elytra; fifth sternite broadly rounded at apex. Length: 10.5 mm.

*Holotype*, male (No. 5248, Mus. Calif. Acad. Sci., Ent.) from Comondú, July 22, 1938, taken at light by Michelbacher and Ross.

*A. michelbacheri* differs from *A. submoestus* Linsley in the very coarsely, contiguously and subcontiguously punctured elytra, more elongate form, shorter, denser pubescence, broad, densely pubescent scutellum, and by having only the third to fifth antennal segments armed with spines at their apices.

### (35) *Anoplium insoletum* Linsley, new species

Male: Form robust; color brown; pubescence short, fine, depressed, intermixed with longer, coarse, suberect, pale hairs. *Head* narrower than pronotum; vertex dull, scabrous; antennae robust, surpassing apex of elytra, segments unarmed at apices, scape stout, coarsely but shallowly punctured, third segment more than three times as long as second, distinctly longer than fourth, fifth segment a little longer than third, remaining segments subequal in length but less robust than preceding. *Pronotum* a little broader than long, base and apex not constricted, sides obtusely angulated just posterior to middle; surface micropunctate with larger, shallow punctures superimposed; pubescence fine, moderately dense, partially obscuring surface, sparsely interspersed with longer, suberect, pale hairs; scutellum a little wider than long, obtusely rounded posteriorly, clothed with pale hairs; metasternum minutely tessellate, not distinctly punctured; metepisterna very sparsely, inconspicuously punctured. *Legs* very finely punctate with scattered coarser, shallow punctures superimposed; femora robust, clothed with short, fine, pale pubescence in addition to longer, sparse, suberect, pale hairs; posterior tarsi with first segment longer than following two together. *Elytra* rough but shining, surface very finely punctured with scattered, irregularly placed, large, shallow punctures superimposed; pubescence fine, short, depressed, pale, with longer, sub-

erect, hairs interspersed. *Abdomen* dullish, finely, densely punctured with scattered large punctures superimposed; surface irregularly clothed with fine, pale, depressed pubescence with longer suberect hairs intermixed; fifth sternite broadly rounded at apex. Length: 11 mm.

*Holotype*, male (No. 5249, Mus. Calif. Acad. Sci., Ent.), from **Comondu**, July 22, 1938, taken at light by Michelbacher and Ross.

This interesting species is temporarily placed in *Anoplium* although it is probably not congeneric with the type species of that genus. It is apparently related to *A. duncani* Knull, but differs from (the description of) that species in the shape and sculpturing of the pronotum which is a little wider than long, in the absence of tubercles from the basal punctures of the elytra, by having the pubescence all pale, etc. In many respects the species is suggestive of the *Hesperophanini*.

### (36) *Anopliomorpha rinconia* (Casey)

*Anoplium rinconium* CASEY, 1924, Mem. Coleopt., 11: 248<sup>1</sup>.

*Anopliomorpha rinconium*, LINSLEY, 1936, Ann. Ent. Soc. Am., 29: 466, pl. 1, f. 3.

*Elaphidion reticolle*, SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 334<sup>2</sup>.

This is the species which has generally been identified as *Periboeum reticolle* Bates, but it differs from the latter in the more slender form, narrower pronotum, coarser pronotal sculpture, longer, coarser erect hairs of the pronotum and elytra, and the feeble spine of the fifth antennal segment.

Type locality: Rincon Mts., Arizona<sup>1</sup>.

Recorded distribution: Arizona<sup>1, 2</sup>; Lower California<sup>3</sup>.

New records: 20 miles north of Comondu, July 23, San Domingo, July 19; 6 miles north of Triunfo, July 15; Triunfo, July 13; Santiago, July 8; Miraflores, July 8; 5 miles south of Miraflores, July 10.

Twenty-nine examples were taken by Michelbacher and Ross, mostly at light, and primarily in the Cape Region. In addition to material from Lower California and Arizona I have seen a number of specimens from various localities in Sinaloa and Sonora.

### (37) *Stenosphenus novatus* Horn

*Stenosphenus novatus* HORN, 1885, Trans. Am. Ent. Soc., 12: 178<sup>1</sup>; LENG, 1887, Entom.

Amer., 2: 193; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>2</sup>; SCHAEFFER, 1911, Jour. N. Y. Ent. Soc., 19: 125; GROSSBECK, 1912, Bull. Am. Mus. Nat. Hist., 31:

326 (record)<sup>3</sup>; LINSLEY, 1934, Pan-Pac. Ent., 10: 60 (record)<sup>4</sup>.

*Stenosphenus lucanus* CASEY, 1912, Mem. Coleopt., 3: 346<sup>5</sup>, n. syn.

The original description of *S. lucanus* Casey fits the present species so closely that I feel confident it is identical. Apparently Casey was unfamiliar with or overlooked *novatus*, for he compared his species only with *dolosus* Horn, to which it bears only a superficial resemblance.

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: Lower California<sup>5</sup>: Cape San Lucas<sup>1</sup>, San José del Cabo<sup>2</sup>, Miraflores<sup>4</sup>, Cape Region between San José and Triunfo<sup>3</sup>.

This species was not taken by Ross and Michelbacher. Lower California material at hand is from the following localities: Santa Rosa (Beyer, C.A.S.), San Pedro, (C.A.S.), Miraflores (C.A.S.), and San José del Cabo (C.A.S.). In this series the legs vary from red to reddish-piceous.

(38) **Stenosphenus basicornis** Linsley

*Stenosphenus basicornis* LINSLEY, 1934, Pan-Pac. Ent., 10: 60<sup>1</sup>.

This attractive little species is bright reddish, with the elytra and abdomen black. It is related to *S. lepidus* Horn, from Arizona, but differs in its smaller size, short antennae which do not attain the apex of the body in the male, and in the form of the pronotum which is as long as broad.

Type locality: Tiburon Island, Gulf of California<sup>1</sup>.

Host: *Prosopis*<sup>1</sup>.

(39) **Stenosphenus** sp.

One example of what appears to be an undescribed species near *S. debilis* Horn was taken by Michelbacher and Ross at Hamilton Ranch, August 2, 1938, on *Asclepias subulata*. Unfortunately the head has been damaged and it would be highly undesirable to describe it from the single mutilated specimen.

(40) **Stenosphenus rossi** Linsley, new species

(Plate 1, fig. 8)

Male: Form elongate, slender, slightly flattened; color black, shining; vestiture sparse, suberect, white. *Head* coarsely, closely, and somewhat confluent punctured on vertex, very coarsely and irregularly on frons; antennal tubercles polished, shining, scarcely punctate; antennae subequal in length to the body, segments three to eight spinose at apex, the spines gradually decreasing in length, scape elongate, slender, subconical, very coarsely punctured, sparsely clothed with suberect pale hairs, second segment slightly longer than broad, segments three to eleven clothed with fine, white pubescence intermixed with longer, suberect, pale hairs, surface less coarsely and more regularly punctured than scape, third segment less than one and one-half times as long as scape, fourth segment about two-thirds as long as third; segments four to ten gradually diminishing in length, eleventh segment longer than tenth. *Pronotum* distinctly narrower than elytra at base, about as long as broad, sides rounded, apex narrower than base; color black, rarely rufo-piceous; surface polished, almost impunctate, glabrous except for a few erect setae at sides; prosternal impressions broad, subquadrate, contiguous, not separated by an impunctate median elevation, surface coarsely punctured and rugose. *Elytra* black, coarsely but not closely punctured, the punctures mostly from two to four puncture widths apart and with a moderately long, suberect seta arising from each; apices emarginate, the angles acute or subspiniiform. *Legs* black, posterior femora reddish; pubescence sparse, coarse, suberect, white; posterior tarsi with first segment distinctly longer than the two following together. *Abdomen* black; sternites polished, subglabrous, almost impunctate; fifth sternite truncate or feebly emarginate at apex. Length: 7.5–8.5 mm.

Female: Antennae distinctly shorter than the body; pronotum dark red, rarely piceous, prosternal impression evident but less strong than in male, rugulose but not coarsely punctate; fifth abdominal sternite broadly rounded at apex. Length: 7.5–8 mm.

*Holotype*, male (No. 5250, Mus. Calif. Acad. Sci., Ent.), *allotype*, female (No. 5251), and fourteen paratypes, eight males and six females, beaten from a flowering leguminose shrub at **San Domingo**, July 19, 1938, by Michelbacher and Ross. Four paratypes each are deposited in the collections of Michelbacher and Ross, two in the California Academy of Sciences, and four in the collection of the writer.

In size and form this species most closely approaches *S. dolosus* Horn, but differs in the short antennae, only as long as the body in the male, distinctly shorter in the female, narrower pronotum, which is black or reddish piceous in color, the reddish posterior femora, and the longer, coarser, elytral setae. In Horn's key (1885, Trans. Am. Ent. Soc., 12: 178), *rossi* would run near *novatus* Horn, but the two are not closely related, the latter differing in the distinctly punctate pronotum, long antennae, closely punctate elytra which are clothed with much shorter, finer, suberect hairs, and the oval, separated, prosternal impressions of the male.

#### (41) *Compsa puncticollis* LeConte

*Compsa puncticollis* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 188<sup>1</sup>; LENG, 1885, Entom. Amer., 1: 134, pl. 3, f. 9; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>2</sup>; SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 337<sup>3</sup>; LINSLEY, 1935, Trans. Am. Ent. Soc., 41: 80 (record)<sup>4</sup>.

*Ibidion asperulum* BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 266, pl. 18, f. 21<sup>5</sup>.

Numerous examples of this distinctive species were taken by Michelbacher and Ross, mostly at light in the southern part of the peninsula. As in many other twig boring species, individuals vary greatly in length (7–14 mm.) as well as in number and size of punctures. This variation appears to be assignable to nutritional differences.

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: Arizona<sup>3</sup>; Mexico<sup>5</sup>: Dist. of Temescaltepec<sup>4</sup>; Lower California: Cape San Lucas<sup>1</sup>, San José del Cabo<sup>2</sup>.

New records: 25 miles south of Santa Rosalia, July 25; 20 miles north of Comondú, July 2; Comondú, July 22; 5 miles south of San Miguel, July 20; 15 miles north of El Refugio, July 4; 20 miles northwest of La Paz, July 16; 5 miles west of San Bartolo, July 13; 6 miles north of Triunfo, July 16; Triunfo, July 13; Santiago, July 8; 8 miles northeast of Cape San Lucas, July 10.

Examples of this species in the collection of the California Academy of Sciences are from the following localities: Lower California: San José del Cabo; Mexico: Venedio, Los Mochis, and Mazatlan.



(42) **Compsa quadriplagiata** LeConte

*Compsa quadriplagiata* LECONTE, 1873, *Smithson. Misc. Coll.*, XI, 264: 189<sup>1</sup>; LENG, 1885, *Entom. Amer.*, 1: 134; HORN, 1894, *Proc. Calif. Acad. Sci.*, (2) 4: 338 (record)<sup>2</sup>; SCHAEFFER, 1908, *Mus. Brooklyn Inst. Arts Sci.*, Bull. 1: 337.

*Ibidion griseolum* BATES, 1892, *Trans. Ent. Soc. Lond.*, 1892: 156, pl. 5, f. 13<sup>3</sup>.

This species differs markedly from the preceding in the form and structure of the pronotum (scarcely punctured, with a narrow median callous and an elevated subbasal tubercule on each side), and the maculate elytra. It is related to *Compsa textile* Thomson, but may be distinguished by the longer fourth segment of the antennae, almost impunctate pronotum devoid of long, erect setae, and the non-carinate tibiae.

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: Mexico<sup>3</sup>; Lower California: Cape San Lucas<sup>1</sup>, El Taste<sup>2</sup>. In the Leng-Cazier collection there is a specimen from San José del Cabo.

(43) **Anoplocurius incompletus** Linsley, new species

(Plate 4, fig. 7)

Male: Form elongate, narrow, subcylindrical; color dark brown, integument shining; vestiture sparse, pale, erect and suberect. *Head* transverse; antennae about one and three-fourths times as long as the body, filiform, eleven-segmented, segments not carinate, finely pubescent, with a few, scattered, erect hairs, longer and a little more numerous on the basal segments, scape a little more than three times as long as broad, feebly arcuate, scarcely thickened apically, surface coarsely, contiguously punctured, sparsely clothed with suberect hairs which are longer externally, second segment as long as broad, third segment a little less than twice as long as scape, apex armed with a slender spine, fourth segment simple, subequal in length to third, segments five to seven subequal in length, each about one-eighth longer than third, eighth segment perceptibly shorter than seventh, segments nine and ten subequal in length, each about as long as third, eleventh segment longest, about one and one-third times as long as tenth; eyes coarsely faceted, deeply emarginate; frons and vertex coarsely, closely punctured, the interspaces forming a network of elevated lines. *Pronotum* barely longer than broad, sides widest behind the middle, surface with a network sculpturing of elevated lines similar to that of head but better defined; prosternum polished and transversely carinulate anteriorly, sculptured at sides like pronotum. *Elytra* about three times as long as pronotum, sides parallel, surface coarsely but not closely punctured, the basal punctures well defined, clothed with short, suberect, pale hairs; apices feebly truncate. *Legs* slender; femora feebly clavate, clothed with short, suberect pubescence with longer, erect hairs intermixed; first segment of posterior tarsi longer than the two following together. *Abdomen* shining; first sternite tumid at middle, fringed with erect pale hairs posteriorly, remaining sternites more coarsely punctured at middle, sparsely clothed with erect hairs at sides. Length: 6.5 mm.



Female: Antennae but little longer than the body, eleven-segmented, segments three to ten gradually decreasing in length, eleventh segment longer than tenth, subequal in length to sixth. Length: 7 mm.

*Holotype*, male (No. 5252, Mus. Calif. Acad. Sci., Ent.) from **twenty miles north of Comondu**, July 2, 1938, and *allotype*, female (No. 5253), from **twenty miles northwest of La Paz**, July 16, 1938. Both specimens were taken at light by Michelbacher and Ross.

In the form and sculpturing of the body this species agrees very closely with *A. canotiae* Fisher, its only known congener. It differs markedly however in the structure of the antennae, which are only eleven segmented, with the third segment spinose in both sexes and the last segment longer than the penultimate. The scape is less robust than in any of the examples of *canotiae* at hand, and the second segment which is transverse in the latter species is at least as long as broad in *incompletus*. In the male, antennal segments five to seven are distinctly longer than three and four.

#### (44) *Lianema tenuicornis* Fall

*Lianema tenuicornis* FALL, 1907, Jour. N. Y. Ent. Soc., 25: 86<sup>1</sup>; SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 331.

This species, the only known representative of its genus, is unknown to me. According to Schaeffer, *Lianema* "... is closely allied to *Hypexilis* [but it] differs from that genus by having the last joint of the maxillary palpi longer and more slender, much longer tarsal joints, more vertical front, shorter mandibles, apex of antennal joints three to ten somewhat inflated and the last joint exceedingly long ...".

Type locality: El Taste<sup>1</sup>.

#### *Perigracilia* Linsley, new genus

Male: Form elongate, very slender, subcylindrical. *Head* nearly one and one-fourth times as wide as pronotum at apex, perceptibly wider than pronotum at base; front short, subvertical, moderately convex, transversely impressed above base of labrum; antennal tubercles moderate, evenly concave between; antennae twelve-segmented, about two and one-half times as long as body, not ciliate, segments three to six, distinctly swollen at apex, scape nearly four times as long as broad, gradually widened apically, second segment longer than broad, third segment about three and one-half times as long as second, fourth segment about one and one-third times as long as third, fifth segment nearly one and three-fourths times fourth, sixth segment about one and one-third times fifth, seventh subequal to sixth, eighth a little longer than seventh, ninth only three-fourths as long as eighth, tenth longer than ninth and about subequal to seventh, eleventh more than one and one-half times as long as tenth and about equal to the first five segments together, twelfth segment longest, about one and one-fifth times as long as eleventh; mandibles short; palpi short, not very unequal in length, last segment of maxillary nar-

row, obliquely truncate at apex, of labial, cylindrical, pointed. *Thorax* elongate; pronotum nearly twice as long as apical width, narrowly constricted at base, broadly and shallowly before apex, base wider than apex, broadly emarginate, sides widest in front of base, thence gradually narrowed to apex, apex truncate; prosternum very elongate in front of coxae, intercoxal process very slender, apex pointed; anterior coxae separated by but a fraction of their widths, cavities angulate externally, open behind; mesosternum triangular; intermediate coxae a little more widely separated than anterior coxae, intervening distance about one-fourth of the width of a coxa, coxal cavities narrowly open externally; metasternum elongate, moderately convex; metepisterna rather broad, straight, but little narrowed posteriorly; metanotum with a large stridulatory area which is obliquely narrowed to the scutellum; scutellum small, subtriangular. *Elytra* nearly three times as long as basal width, a little shorter than the abdomen; humeri distinct; disk flattened; sides subparallel; apices a little dehiscent, separately, narrowly rounded. *Legs* moderately short; femora strongly clavate, subpedunculate; tibiae slender, linear; posterior tarsi slender, barely more than one-half as long as tibiae, first segment longer than following two together but distinctly shorter than remaining segments together. *Abdomen* with first sternite at middle not longer than second sternite.

*Genotype: Perigracilia tenuis*, new species.

This remarkable genus belongs in the tribe Graciliini near *Hypexilis* and *Lianema*. From both of these genera it may be distinguished at once by the twelve-segmented antennae and the proportions of the various antennal segments. In the former genus, the segments from three to eleven gradually increase in length toward the apex; in *Lianema* segments three to six increase in length, six to ten are subequal, and the eleventh segment is nearly as long as the four preceding together. In *Perigracilia*, however, segments three to six increase, six and seven are subequal, the eighth longer, the ninth shorter than any of the three preceding, the tenth again longer, the eleventh more than one and one-half times the tenth, and the twelfth a little longer than the eleventh. It may be further differentiated from *Hypexilis* by the slender maxillary palpi which are not much longer than the labial palpi, and the short, first abdominal sternite. From (the description of) *Lianema* it also differs in the narrow prosternal process and short posterior tarsi which are scarcely more than half as long as the tibiae and have the first segment distinctly shorter than the following segments together. It may be distinguished from *Gracilia* by the nonciliate, twelve-segmented antennae, elongate thorax, short first abdominal sternite, etc.

(45) ***Perigracilia tenuis*** Linsley, new species

(Plate 4, fig. 3)

Male: Form linear; color dull brown; vestiture very short, fine, pale, obscure. *Head* moderately finely, closely punctured, the interspaces very mi-

nutely punctured; pubescence sparse, obscure; antennae very finely, obscurely clothed with prostrate pubescence, erect hairs absent, first four segments moderately finely, closely, distinctly punctured, fifth segment less distinctly punctured, punctation of remaining segments very obscure. *Pronotum* alutaceous, moderately finely punctured, punctures more distinct apically; disk flattened posteriorly, closely punctured and finely rugulose; prosternum shining, finely, transversely rugulose, minutely spiculate, sides dull posteriorly, closely punctured and minutely tessellate; meso- and metasterna finely, closely punctured and minutely tessellate; scutellum shining, finely punctured. *Elytra* evenly but obscurely and finely punctulate, sparsely clothed with a short, pale, obscure, prostrate pubescence. *Legs* moderately short; femora shining, very finely punctate with a few, large punctures superimposed, these latter smaller than those of pronotum, pubescence fine, depressed, pale, the hairs a little longer and more numerous than those of elytra; tibiae more densely pubescent; posterior tarsi very slender, not padded beneath. *Abdomen* cylindrical, sternites moderately shining, finely punctate and minutely tessellate, sparsely clothed with obscure, fine, pale pubescence; fifth sternite subtruncate at apex; sixth tergite densely clothed with long, erect hairs of irregular lengths. Length: 5.5–6.5 mm.

*Holotype*, male (No. 5254, Mus. Calif. Acad. Sci., Ent.), from **10 miles southwest of San José del Cabo**, July 9, 1938, and two paratypes, both males, from 8 miles northeast of Cape San Lucas, July 10, 1938. All three specimens were taken at light by Michelbacher and Ross.

(46) ***Gracilia fasciata*** LeConte

*Gracilia fasciata* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 171<sup>1</sup>; LENG, 1885, Bull. Brooklyn Ent. Soc., 7: 118.

In this very remarkable species there is a transverse band of white pubescence behind the middle of the elytra and the elytral apices are serrate. I have never seen a specimen but from the description I suspect that it is not a true *Gracilia*.

Type locality: Lower California<sup>1</sup>.

(47) ***Obrium (Phyton) discoideum*** (LeConte)

(Plate 4, fig. 5)

*Phyton discoideum* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 190<sup>1</sup>; LENG, 1886, Entom. Amer., 2: 28; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>2</sup>.

*Obrium discoideum*, AURIVILLIUS, 1912, Coleopt. Catal., 39: 133.

This species is very distinct in the unicolorous pronotum and the pattern of the elytra which, together, have a transverse median pale band enclosed in a fuscous cloud.

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: Lower California: Cape San Lucas<sup>1, 2</sup>.

New records: 6 miles north of Triunfo, July 15; Triunfo, July 13.

Five specimens were captured by Michelbacher and Ross, all taken at light in the Cape Regoin. Additional examples have been seen from Santa Rosa (Beyer, Leng-Cazier) and from Venedio, Sinaloa (C.A.S.). This last record is apparently the first for the Mexican mainland.

(48) **Obrium peninsulare** Schaeffer

*Obrium peninsulare* SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 338.

*Obrium brunneum* SCHAEFFER (*nec* FABRICIUS), 1904, Jour. N. Y. Ent. Soc., 12: 223<sup>1</sup>.

I have in my collection a single male of this species sent to me several years ago by Mr. Schaeffer. It is uniformly brownish testaceous with the elytra rather evenly coarsely, closely punctured, the punctures averaging less than two puncture widths apart. The abdomen is rather dull, the sternites minutely tessellate. The eyes are separated on the vertex by about the diameter of the antennal scape.

Type locality: Santa Rosa, Lower California<sup>1</sup>.

(49) **Obrium constricticolle** Schaeffer

*Obrium constricticolle* SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull., 1: 338<sup>1</sup>.

This species has not been previously recorded from Lower California. It is smaller than the preceding (4.5–6 mm. as compared to 7–7.5 mm.) and differs in having the elytra more sparsely and irregularly punctured and the abdominal sternites highly polished and shining. The elytral punctation is finer and sparser at base, coarse and dense at middle, and the apical one-third is almost impunctate. The color is brownish testaceous, with a marked tendency, particularly in the smaller males, toward a lateral piceous clouding at the middle of the elytra. In the darkest individuals the clouding is also present at the base and apex, leaving the pale areas in the form of a cross.

Type locality. Huachuca Mts., Arizona<sup>1</sup>.

New records: San Domingo, July 19; 6 miles north of Triunfo, July 15; Triunfo, July 7.

Thirteen specimens were taken by Michelbacher and Ross. All were captured at light.

(50) **Ortholeptura insignis** (Fall)

*Leptura insignis* FALL, 1907, Trans. Am. Ent. Soc., 33: 251<sup>1</sup>.

*Ortholeptura insignis*, CASEY, 1913, Mem. Coleopt., 4: 205.

*Anoplodera insignis*, SWAINE and R. HOPPING, 1928, Nat. Mus. Can., Bull. 52: 41, 56; LINSLEY, 1934, Pan-Pac. Ent., 10: 59 (record)<sup>2</sup>.

The genus *Ortholeptura*, suppressed by Swaine and Hopping (1928, Nat. Mus. Can., Bull. 52: 38), is, in my opinion, distinct and worthy of recognition. It may be readily recognized by the large size, parallel body form, coarsely faceted eyes, completely closed anterior coxal cavities, and the presence of a pubescent sole on the first tarsal segment. The species, unlike those of *Anoplodera* (where they were placed by Swaine and Hopping), are nocturnal and



commonly attracted to light. *O. insignis* (Fall) occurs on the Monterey and Bishop Pines in a few discontinuous localities from Fort Bragg, California to Guadalupe Island.

Type locality: Monterey, California<sup>1</sup>.

Recorded distribution: coastal California; Guadalupe Island<sup>2</sup>.

Hosts: *Pinus radiata*, *P. muricata*.

### (51) *Cortodera (Acmaeopsilla) falsa* (LeConte)

*Acmaeops falsa* LECONTE, 1859, Proc. Acad. Nat. Sci. Phila., 1859: 80<sup>1</sup>; LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 210; LENG, 1890, Entom. Amer., 6: 109; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>2</sup>.

*Leptaemacops (Acmaeopsilla) falsa*, CASEY, 1913, Mem. Coleopt., 4: 240.

A well known and occasionally abundant southern California species which was recorded from Lower California by Horn. The adults frequent flowers of the Compositae.

Type locality: Tejon, California<sup>1</sup>.

Recorded distribution: southern California; Lower California: Calmalli Mines<sup>2</sup>.

### (52) *Anoplodera (Judolia) 6-spilota* (LeConte)

*Leptura 6-spilota* LECONTE, 1859, Proc. Acad. Nat. Sci. Phila., 1859: 80<sup>1</sup>.

*Leptura sexspilota*, LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 218; LENG, 1890, Entom. Amer., 6: 188, 196; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>2</sup>.

*Judolia sexspilota*, CASEY, 1913, Mem. Coleopt., 4: 249.

*Anoplodera sexspilota*, SWAINE and R. HOPPING, 1928, Nat. Mus. Can., Bull. 52: 39, 51, pl. 6, f. 64.

This well known southern California species was recorded by Horn from the San Pedro Martir of northern Lower California. No other species of *Anoplodera* is known from the peninsula at present.

Type locality: Tejon, California<sup>1</sup>.

Recorded distribution: central and southern California; Lower California: San Pedro Martir<sup>2</sup>.

New records: San Vincente, July 15.

Three specimens were taken on flowers by Michelbacher and Ross.

### (53) *Ophistomis laevicollis ventralis* (Horn)

*Ophistomis ventralis* HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 401<sup>1</sup>; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 175.

H. W. Bates, in 1880 (Biol. Centr.-Amer., Coleopt., 5: 39), described a species from Guatemala to which he gave the name *Ophistomis laevicollis*. Five years later (i.e., 5: 279, 1885), after the receipt of additional material, he stated that his type specimen apparently represented a rare color variety, and proceeded to describe (but not name) several additional "colour variations" from Panama, Guatemala, and Mexico. At the same time he commented that *O. laevicollis* and *O. rostrata* Bates differed from their congeners in the very convex mesosternum, form of the thorax, and angular shoulders of the

elytra, suggesting that these differences might warrant their generic separation. Casey, in 1891 (Ann. N. Y. Acad. Sci., 6: 41), reported that an Arizona specimen had been sent to Bates and determined by him as *laevicollis*, differing from the Central American examples only in the sparser punctation, longer elytra, and shorter outer angle of the elytral truncature. In 1894, Horn described from Lower California a species, *O. ventralis*, related to *O. laevicollis*, but which in the general comments following his description he compared to *O. rufiventris* Bates. Casey, correctly recognizing that the Horn species was in reality close to *laevicollis*, applied the name "*ventralis*" to the Arizona specimens which he had previously sent to Bates. In 1913 (Mem. Coleopt., 5: 260), when he followed the earlier suggestion of Bates and proposed a new genus for this group of species, he selected as his genotype *O. ventralis* (Casey, *nec* Horn). Recently, Hopping (Nat. Mus. Can., Bull. 85: 21, 1937), again accepting Arizona specimens as *ventralis*, has relegated the species to synonymy with *laevicollis* Bates, and, considering the latter species congeneric with *O. flavocinctus* Thomson (genotype of *Ophistomis*), has suppressed *Cyphonotida* Casey. In my own collection, the Leng-Cazier collection, and in the California Academy of Sciences, there is a series of sixty-one examples from numerous localities in southern Arizona (Nogales, Santa Rita Mts., Huachuca Mts., and Chiricahua Mts.), all rather constant in color pattern and all differing from the Lower California series at hand. The Arizona specimens have red humeri (the spot is sometimes small but present in every specimen seen), black elytral pubescence (pale in *ventralis*), and the apical pubescence of the elytra is much denser. In my opinion, the Lower California and Arizona specimens are at least subspecifically, if not specifically distinct. Apparently also, the Arizona specimens are at least subspecifically distinct, in view of their constancy, from the true *laevicollis* Bates. These conform most closely (but not exactly) to the type described by Bates as var. 5 from Mexico. Hopping (1.c) records a series in the United States National Museum from Arizona as conforming to var. 4 (from Guatemala) but I have not seen examples of this type. Bates describes his variety 4 as follows: "Niger, thorace supra abdomineque (apice excepto) rufis."

Type locality: El Taste<sup>1</sup>.

*Lectotype*: No. 68, Calif. Acad. Sci., Ent., ♀.

#### (54) *Vesperoctenus flohri* Bates

*Vesperoctenus flohri* BATES, 1891, Ent. Mo. Mag., 27: 160<sup>1</sup>; BATES, 1892, Trans. Ent. Soc. London., 1892: 158<sup>2</sup>; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 324, pl. 8, f. 1-3<sup>3</sup>; GAHAN, 1895, Ent. Mo. Mag., 31: 22; HORN, 1895, Ent. News, 6: 114; BOPPE, 1921, Genera Insectorum, 178: 29, pl. 2, f. 5.

This interesting species which was first discovered in Mexico, has been the subject of a considerable amount of controversy. Described originally by Bates as a longicorn, Horn (1894) transferred it to the Rhipiceridae. Horn's action was immediately challenged by Gahan (1895) who staunchly defended its

original assignment to the Cerambycidae. Most Coleopterists now agree that the genus is cerambycoid and related to *Vesperus* (Vesperini), but its exact phylogenetic position within the family (as is the case with Philini) is still in dispute.

Type locality: Durango, Mexico<sup>1</sup>.

Recorded distribution: Mexico: Durango<sup>1</sup> (Sierra Madre)<sup>2</sup>; Lower California: San Francisquito<sup>3</sup>.

Mr. Bates has reported that some of the type specimens were captured emerging from the ground, and that others were attracted to light. He suggested that, like *Vesperus*, they might be root borers.

#### (55) *Acyphoderes delicata* Horn

*Acyphoderes delicatus* HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 400<sup>1</sup>; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 168.

Only the type specimen (No. 65, Calif. Acad. Sci., Ent.) of this interesting species is known. It is the only Lower California representative of the tribe Rhinotragini. Serville made the genus *Acyphoderes* feminine and I have changed the Horn name accordingly.

Type locality: El Taste<sup>1</sup>.

#### (56) *Plinthocoelium cobaltinum* (LeConte)

*Callichroma cobaltinum* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 195<sup>1</sup>; LENG, 1886, Entom. Amer., 2: 61; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>2</sup>.

*Plinthocoelium cobaltinum*, SCHMIDT, 1924, Deutsche Ent. Zeitschr., 1924: 385<sup>3</sup>.

This beautiful species was not taken by Michelbacher and Ross. Lower California specimens have been seen from the following localities: San José del Cabo (C.A.S.), El Taste (Leng-Cazier).

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: Mexico<sup>3</sup>; Lower California: Cape San Lucas<sup>1,2</sup>.

#### (57) *Cyllene antennata* (White)

*Clytus antennatus* WHITE, 1855, Cat. Coleopt. Brit. Mus., 8: 252<sup>1</sup>.

*Cyllene antennatus*, HORN, 1880, Trans. Am. Ent. Soc., 7: 135<sup>2</sup>; LENG, 1887, Entom. Amer., 2: 195<sup>3</sup>; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>4</sup>; GROSSBECK, 1912, Bull. Am. Mus. Nat. Hist., 31: 325 (record)<sup>5</sup>; CRAIGHEAD and HOFER, 1921, U. S. Dept. Agr., Farmers' Bull. 1197: 6, figs. 5, 6; CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 33 (biol.)<sup>6</sup>; G. HOPPING, 1937, Ann. Ent. Soc. Am., 30: 441, pl. 1.

*Cyllene antennata*, BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 295 (record)<sup>7</sup>.

*Megacyllene antennata*, CASEY, 1912, Mem. Coleopt., 3: 348, 351.

*Arhopalus eurytethus* LECONTE, 1858, Proc. Acad. Nat. Sci. Phila., 1858: 82<sup>8</sup>; LECONTE, 1859, in: Thomson, Arcana Nat., p. 127, pl. 13, f. 9; LECONTE, 1861, Proc. Acad. Nat. Sci. Phila., 1861: 335 (record)<sup>9</sup>.

This well known Sonoran species was taken at light in the Cape Region by Michelbacher and Ross. The larvae live in the dead wood of leguminose trees, particularly mesquite.

Type locality: "W. Coast of America"<sup>1</sup>.

Recorded distribution: southwestern United States: Texas<sup>6</sup>, Arizona<sup>2</sup>, California<sup>3</sup>; Mexico: Sonora<sup>7,8</sup>; Lower California<sup>9</sup>: Cape San Lucas<sup>4</sup>, Cape Region between San José and Triunfo<sup>5</sup>.

New record: Santiago, July 8.

Hosts: *Prosopis*<sup>2</sup>, *Acacia*<sup>6</sup>.

(58) ***Xylotrechus insignis* LeConte**

*Xylotrechus insignis* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 199<sup>1</sup>; CASEY, 1891, Ann. N. Y. Acad. Sci., 6: 35<sup>2</sup>; VAN DYKE, 1920, Bull. Brooklyn Ent. Soc., 15: 43; CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 58 (biol.); G. HOPPING, 1932, Ann. Ent. Soc. Am., 25: 541, pl. 2, f. 13-14; LINSLEY, 1935, Ent. News, 46: 163, f. 2.

*Xylotrechus obliteratus*, LENG, 1887, Entom. Amer., 2: 199; FALL, 1897, Can. Ent., 29: 240 (record)<sup>3</sup>; 1901, Occ. Pap. Calif. Acad. Sci., 8: 147.

*Xylotrechus planifrons*, FALL, 1901, Occ. Pap. Calif. Acad. Sci., 8: 147.

*Xylotrechus diruptus* CASEY, 1912, Mem. Coleopt., 3: 367.

This very beautiful, sexually dimorphic and dichromatic species breeds in willow, and the males frequent the leaves of *Verbascum* and *Asclepias*. The series captured by Michelbacher and Ross is composed entirely of males which differ from the typical form in having the elytra suffused with ochraceous pubescence. The mid-elytral fascia is present as an undulating, thread-like line in some of the examples, absent in others. The specimens are similar to, but not quite identical with, the northern California form to which Casey gave the name *incongruens* (Mem. Coleopt., 3: 366, 1912). Hopping (1932) has placed the latter name in synonymy, but possibly without sufficient justification. Seventy-one specimens referable to *incongruens* are before me from several localities in coastal northern California. Thus far, the writer has never collected both *incongruens* and typical *insignis* from the same plant, a fact which might suggest that the former is subspecifically distinct. In the case of doubtful forms for which names have already been proposed, it seems to the present writer that the preferable policy is to keep the names separate and the records distinct, until such time as they can be shown to be conspecific. For *incongruens*, this will mean rearing the two types and associating them with females (only males of *incongruens* are known).

Type locality: California<sup>1</sup>.

New record: 20 miles south of Santo Tomas, August 6.

(59) ***Neoclytus peninsularis* Schaeffer**

*Neoclytus peninsularis* SCHAEFFER, 1905, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 133<sup>1</sup>; G. HOPPING, 1932, Ann. Ent. Soc. Am., 25: 551, pl. 3, f. 7.

*N. peninsularis* Schaeffer resembles *N. interruptus* LeConte, but differs in pattern of the pronotal and elytral pubescence. In *peninsularis*, the pronotum is clothed with ashy gray pubescence, in *interruptus* there is a transverse band of yellow along the basal margin. In the former species, the ante-median band of the elytra is transverse and straight, the median band in the form of an in-



verted "V." In the latter species the ante-median spot is suboval and much nearer the base, the median spots lunulate, both markings usually failing to attain either the suture or the lateral margin.

Type locality: San Felipe, Lower California<sup>1</sup>.

(60) **Neoclytus magnus** Schaeffer

*Neoclytus magnus* SCHAEFFER, 1904, Jour. N. Y. Ent. Soc., 12: 224<sup>1</sup>.

This species has not been seen by the writer. From a reading of the description, however, it seems very unlikely that the *N. magnus* of Van Dyke (1927, Pan-Pac. Ent., 3: 109) and G. Hopping (1932, Ann. Ent. Soc. Am., 25: 556, pl. 5, fig. 5) is the true *magnus* of Schaeffer. Their records are based on material that is very close to, if not identical with, *N. balteatus* LeConte. An examination of Schaeffer's type is in order before the status of *magnus* can be determined.

Type locality: Ensenada, Lower California<sup>1</sup>.

(61) **Neoclytus irroratus** (LeConte)

*Clytus irroratus* LECONTE, 1858, Jour. Acad. Nat. Sci. Phila., (2) 4: 26<sup>1</sup>.

*Neoclytus irroratus*, LENG, 1887, Entom. Amer. 3: 6; G. HOPPING, 1932, Ann. Ent. Soc. Am., 25: 550, pl. 4, f. 12<sup>2</sup>.

*Rhopalopachys irroratus*, HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>3</sup>.

*Clytus (Rhopalopachys) morosus* CHEVROLAT, 1860, Ann. Soc. Ent. France, (3) 8: 501<sup>4</sup>.

*Rhopalopachys morosus*, BATES, 1880, Biol. Centr.-Amer., Coleopt., 5: 58.

This species is very distantly related to the two preceding, and may be distinguished at once by the strongly spinose femora and elytra, abruptly clavate femora, three rows of pronotal rugae, and the elytral pattern which consists of an oval humeral spot and a thread-like, wavy, post-median line.

Type locality: Texas<sup>1</sup>.

Recorded distribution: southwestern United States: Texas<sup>1</sup>, Arizona<sup>3</sup>, California<sup>2</sup>; Mexico<sup>4</sup>; Lower California: El Taste<sup>3</sup>.

(62) **Eplophorus bicinctus** Linsley

*Eplophorus bicinctus* LINSLEY, 1935, Trans. Am. Ent. Soc., 51: 88.

The genus *Eplophorus* has not been previously recorded from Lower California. Examples taken by Michelbacher and Ross appear to represent a subspecies of *E. bicinctus* Linsley, described from Sinaloa.

(62a) **Eplophorus bicinctus peninsularis** Linsley, new species

(Plate 4, fig. 9)

Differing from typical *bicinctus* as follows: Smaller, only 4.5–5 mm. in length as compared to 7.5–8 mm.; integument black with the antennae and legs vaguely reddish, rather than red, with only the mouthparts, scape, pronotum, margins of prosternum, abdomen, and apical one-third of elytra black; and the fourth antennal segment with a short spine (very feeble in *bicinctus*).

*Holotype*, male (No. 5255, Mus. Calif. Acad. Sci., Ent.), *allotype*, female (No. 5256), and four paratypes, beaten from *Prosopis* at **San Domingo**, July 19, 1938, by Michelbacher and Ross. One paratype each is deposited in the collections of Michelbacher and Ross, one in the California Academy of Sciences, and one in the collection of the writer.

This subspecies was captured in the company of *Eudermes parallelus* LeConte, to which it bears a strong superficial resemblance in size, form, color, and the geminate eburneous fasciae of the elytra. It may be readily separated from the latter, however, by the bispinose elytral apices, spinose antennae, densely punctured and pubescent first abdominal sternite, etc. *E. bicinctus bicinctus* was taken with the ant *Pseudomyrma gracilis* subsp. *mexicana* Roger, a species to which it bears a striking mimetic resemblance.

### (63) *Eudermes parallelus* LeConte

*Eudermes parallelus* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 202<sup>1</sup>; LENG, 1887, Entom. Amer., 3: 24, 44; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>2</sup>.

In this species, unlike in most of its congeners, the eburneous elytral fasciae are transverse. Normally the fasciae are paired, but in the series captured by Michelbacher and Ross, about one-fourth of the specimens have the anterior fascia reduced, and in about one-eighth of the examples it is lacking entirely. This tendency to lose the anterior fasciae is particularly noticeable in the smaller females (3–3.5 mm.).

Type locality: Lower California<sup>1</sup>.

Recorded distribution: Lower California: San José del Cabo<sup>2</sup>.

New records: San Domingo, July 19; Venancio, July 17; Triunfo, July 13.

Additional Lower California examples have been seen from Santa Rosa (Beyer, Leng-Cazier). The Ross and Michelbacher specimens were mostly captured by beating *Prosopis* and at flowers of an undetermined leguminose plant.

### *Rhopalophorella* Linsley, new genus

Male: Form elongate, slender, subparallel; elytra with pubescent fasciae. *Head* narrower than pronotum; front oblique; vertex evenly convex, scarcely impressed between the antennae; antennal tubercles very feeble; antennae one and one-fourth times as long as body, filiform, neither setaceous nor ciliate, scape robust, clavate, with a dorsal sinus, second segment beadlike, as long as broad, third segment one and one-third times as long as scape, nearly twice as long as fourth segment, segments five to eleven subequal in length; eyes small, finely granulated, deeply emarginate, lower lobe wider than vertical length, broadly rounded below, subtruncate above, dorsal lobe small, narrow; mandibles short, strongly curved, acute; palpi short, unequal, last segment of both pairs subcylindrical, not expanded; genae prominent. *Thorax* elongate, subcylindrical; pronotum a little narrower than elytra at base, rather broadly constricted basally, narrowly constricted apically, sides widest in front of

base; prosternum elongate in front of coxae, intercoxal process narrow, expanded posteriorly, anterior coxae round, cavities small, closed and not angulated externally, open behind; intermediate coxal cavities small, closed externally; metasternum moderately convex, metepisterna narrow, slightly arcuate, with a longitudinal carina over about two-thirds of its length; scutellum small, obtuse. *Elytra* widest apically; disk flat, without a lateral carina; apices obtuse, tridentate. *Legs* long, slender; femora pedunculate, apices suddenly clavate, posterior pair surpassing elytral apices; tibiae slender, spurs short; tarsi slender, posterior pair with first segment nearly three times as long as second segment. *Abdomen* moderately robust; first sternite shorter than fourth.

Female: Antennae about two-thirds as long as body, outer segments flattened, subserrate, eleventh segment longer than tenth; posterior femora falling far short of elytral apices; fifth sternite longer than fourth.

*Genotype*: *Rhopalophora bicincta* Horn.

This genus would apparently fall in the tribe Cleomenini as defined by Lacordaire (1869, Gen. Coleopt., 9: 97) near *Dihammaphora*, but seems equally closely related to *Rhopalophora* (Rhopalophorini). From the former genus it differs in the longer antennae which are two-thirds as long as the body in the male and filiform, and in the absence of a lateral elytral costa. From *Rhopalophora* it may be distinguished by the non-setaceous antennae, unimpressed vertex, small eyes, short posterior femora in the female, carinate metepisterna, and type of ornamentation. The type species, *Rhopalophora bicincta*, was doubtfully referred to that genus by Horn, who knew only the female. The discovery of the male confirms the latter's suspicion that the species was generically distinct.

#### (64) *Rhopalophorella bicincta* (Horn)

(Plate 4, fig. 6)

*Rhopalophora bicincta* HORN, 1895, Proc. Calif. Acad. Sci., (2) 5: 245<sup>1</sup>.

This species is dull black with a band of silvery white pubescence at the base of the elytra, another at middle, and patches of similar hair on the ventral surface. Superficially it has the appearance of a member of the tribe *Tillomorphini*.

Type locality: San José del Cabo<sup>1</sup>.

New records: 6 miles north of Triunfo, July 15; Triunfo, July 7.

Four specimens of this rare species, hitherto known only by the unique type (No. 64, Calif. Acad. Sci., Ent.) were taken by Michelbacher and Ross.

#### (65) *Rhopalophora rugicollis* LeConte

*Rhopalophorus rugicollis* LECONTE, 1858, Proc. Acad. Nat. Sci. Phila., 1858: 83<sup>1</sup>.

*Rhopalophora rugicollis*, LENG, 1886, Entom. Amer., 2: 31; CASEY, 1891, Ann. N. Y. Acad. Sci., 6: 30; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>2</sup>; SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 330 (list)<sup>3</sup>.

This species may be easily recognized by the narrow, transversely plicate and rugose pronotum.

Type locality: Texas<sup>1</sup>.

Recorded distribution: southwestern United States: Texas<sup>1</sup>, Arizona<sup>3</sup>; Lower California: San José del Cabo<sup>2</sup>.

### (66) *Rhopalophora longipes* (Say)

*Stenocorus longipes* SAY, 1823, Jour. Acad. Nat. Sci. Phila., 3: 426<sup>1</sup>.

*Tinopus longipes*, LeCONTE, 1850, Jour. Acad. Nat. Sci. Phila., (2) 2: 20<sup>2</sup>.

*Rhopalophorus (longipes)*, LeCONTE, 1854, Proc. Acad. Nat. Sci. Phila., 1854: 218.

*Rhopalophora longipes*, LENG, 1886, Entom. Amer., 2: 30<sup>3</sup>, pl. 2, f. 28; CASEY, 1891, Ann.

N. Y. Acad. Sci., 8: 30; HAMILTON, 1892, Can. Ent. 24: 159; SCHAEFFER, 1908, Mus.

Brooklyn Inst. Arts Sci., Bull. 1: 330 (list)<sup>4</sup>.

To this species I have questionably referred two specimens taken by Michelbacher and Ross at San Domingo. They differ from *longipes* primarily in the more elongate pronotum and shorter fourth segment of the antennae. They are closer to specimens from Arizona than to the typical *longipes* of eastern United States, but cannot be matched in any of the material which I have at hand. This genus is in need of a restudy, particularly in the light of the Mexican fauna.

Type locality: "Missouri Territory".<sup>1</sup>

Recorded distribution: eastern and southwestern United States from Pennsylvania<sup>2</sup> to Colorado<sup>3</sup> and Arizona<sup>4</sup>.

New record: San Domingo, July 19.

### (67) *Stenaspis solitaria* (Say)

*Cerambyx solitarius* SAY, 1823, Jour. Acad. Nat. Sci. Phila., 3: 410<sup>1</sup>.

*Callichroma solitarium*, HALDEMAN, 1847, Trans. Am. Philos. Soc., 10: 32.

*Smileceras solitarium*, LeCONTE, 1850, Jour. Acad. Nat. Sci., Phila., (2) 2: 9.

*Stenaspis solitaria*, LeCONTE, 1853, Proc. Acad. Nat. Sci. Phila., 1853: 441; LeCONTE,

1859, Coleopt. Kans. New Mex., p. 20, pl. 2, f. 14; BATES, 1885, Biol. Centr.-Amer.,

Coleopt., 5: 321<sup>2</sup>; LENG, 1886, Entom. Amer., 2: 62, pl. 3, f. 8; HORN, 1894, Proc. Calif.

Acad. Sci., (2) 4: 338 (record)<sup>3</sup>; GROSSBECK, 1912, Bull. Am. Mus. Nat. Hist., 31: 325

(record)<sup>4</sup>; LINSLEY, 1934, Pan-Pac. Ent., 10: 60 (record)<sup>5</sup>.

*Stenaspis unicolor* DUPONT, 1840, Mag. Zool., X, Ins. p. 11, pl. 38.

This rather widespread longicorn was not taken by Ross and Michelbacher. It frequents leguminose trees, particularly *Prosopis*, on the leaves and branches of which it is very conspicuous because of its unusually large size and black or bluish-black color.

Type locality: "Upper Arkansa".<sup>1</sup>

Recorded distribution: southwestern United States: Texas and Kansas to Arizona; Mexico<sup>2</sup>; Gulf of California: Carmen Island<sup>3</sup>; Lower California: San José del Cabo<sup>3</sup>; Cape Region between San José and Triunfo<sup>4</sup>.

Hosts: *Prosopis*, *Acacia*, etc.



(68) **Tragidion peninsulare** (Schaeffer)

*Tragidion annulatum* var. *peninsulare* SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts. Sci., Bull. 1: 339.

*Tragidion peninsulare*, LINSLEY, 1940, Pan-Pacific Ent., 16: 137.

This species, which has been confused with *T. annulatum* LeConte, differs in having a narrow band of dark pubescence at the base of the elytra. In addition, the elytra of the male are reddish orange rather than fulvochraceous, the antennal segments from eight to eleven are black, and the head, thorax, and legs are black rather than reddish brown. Lower California specimens belong to the typical subspecies.

(68a) **Tragidion peninsulare peninsulare** (Schaeffer)

*Tragidion annulatum* var. *peninsulare* SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 339.

*Tragidion peninsulare*, CASEY, 1912, Mem. Coleopt., 3: 321.

*Tragidion peninsulare peninsulare*, LINSLEY, 1940, Pan-Pacific Ent., 16: 135<sup>2</sup>.

*Tragidion annulatum*, LECONTE, 1861, Proc. Acad. Nat. Sci. Phila., 1861: 335 (record)<sup>3</sup>; CASEY, 1893, Ann. N. Y. Acad. Sci., 7: 856; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>4</sup>; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 169.

*Tragidion simulatum*, GROSSBECK, 1912, Bull. Am. Mus. Nat. Hist., 31: 325 (record)<sup>5</sup>.

Type locality: San Felipe<sup>1</sup>.

Recorded distribution: Lower California<sup>3</sup>: San Felipe<sup>1</sup>, Cape Region between San José and Triunfo<sup>5</sup>, San José del Cabo<sup>3</sup>; southern California<sup>2</sup>.

(69) **Tragidion armatum** LeConte

*Tragidion armatum* LECONTE, 1858, Jour. Acad. Nat. Sci. Phila., (2) 4: 25<sup>1</sup>; LACORDAIRE, 1869, Genera Coleopt., 9: 174, f.n. 3; LECONTE, 1873, Smithson. Misc. Coll., XI, 265: 314; LENG, 1886, Entom. Amer., 2: 81; CASEY, 1893, Ann. N. Y. Acad. Sci., 7: 586; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 169; CASEY, 1912, Mem. Coleopt., 3: 324; CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 79, pl. 27, fig. 3 (larva); LINSLEY, 1934, Pan-Pac. Ent., 10: 61 (record)<sup>3</sup>; LINSLEY, 1940, Pan-Pacific Ent., 16: 135.

This species differs from *peninsulare* in the smooth, non-corrugated elytra with the costae indicated only by vague, thread-like, unraised lines, the slender, sparsely pubescent tibiae, and the absence of bluish reflections from the dark pubescence.

Type locality: Llano Estacado, Texas<sup>1</sup>.

Recorded distribution: Texas<sup>1</sup>, southern California<sup>2</sup>; Gulf of California: Danzante Island<sup>3</sup>.

Host: *Yucca*.

(70) **Metaleptus femoratus** Schaeffer

*Metaleptus femoratus* SCHAEFFER, 1909, Mus. Brooklyn Inst. Arts Sci., 1: 384<sup>1</sup>; SCHAEFFER, 1911, Jour. N. Y. Ent. Soc., 19: 124 (syn.); LINSLEY, 1934, Pan-Pac. Ent., 10: 61 (record)<sup>2</sup>.

*Metaleptus gracilior* FALL, 1909, Can. Ent., 41: 164.

The genus *Metaleptus*, as represented by six species before me from Mexico and southwestern United States, is rather heterogeneous, and the species may not all be strictly congeneric. In *M. femoratus* the prosternum is convex,

the mesosternum protuberant between the coxae, and the femora of the posterior legs surpass the apex of the elytra. As has been pointed out by Fall (1909), the species is very variable in color, and the series at hand exhibits most of the variations mentioned by that author.

Type locality: Baboquivari Mts., Arizona<sup>1</sup>.

Recorded distribution: southern Arizona; Mexico: Sinaloa<sup>2</sup>; Gulf of California: San Pedro Bay<sup>2</sup>.

(71) **Crossidius australis** Linsley, new species

(Plate 5, fig. 6)

Male: Form robust; color reddish brown, abdomen testaceous, elytra testaceous with a black humeral spot and a black sutural vitta; pubescence pale. *Head* much narrower than pronotum, coarsely, subcontiguously punctured, clothed with long, coarse, erect and suberect setae; antennae nearly as long as body, scape robust, coarsely, closely punctate, clothed with suberect pale setae, third segment longer than fourth, segments four to ten subequal in length, segments three to six distinctly punctured and clothed with suberect setae, most numerous on segments three and four, segments seven to eleven scarcely punctate, minutely pubescent. *Pronotum* transverse; disk very coarsely, irregularly punctured, punctures varying from adjoining to one or more puncture widths apart, surface sparsely clothed with long, coarse, suberect setae which become numerous at sides and along anterior and posterior margin; prosternum coarsely punctured, densely clothed with long, pale, coarse setae; metasternum and metepisterna moderately finely, closely punctured, densely clothed with long, coarse, pale setae; scutellum densely clothed with fine, pale hairs. *Legs* slender, coarsely, closely punctured, clothed with coarse, suberect, pale hairs; posterior tarsi slender, first segment a little longer than following two together. *Elytra* very coarsely punctured, the punctures becoming smaller apically; costae distinct, appearing shiny to the naked eye; surface clothed with short, suberect, coarse setae, longer and more numerous in sutural and apical areas; apices emarginate. *Abdomen* finely, closely punctured, densely clothed with very long, prostrate, white hairs. Length: 10–13 mm.

Female: Form broader, more robust; head, antennae, pronotum, and legs usually very dark brown or blackish, dark areas of elytra more extensive; antennae attaining apical one-third of elytra. Length: 12–14.5 mm.

*Holotype*, male (No. 5257, Mus. Calif. Acad. Sci., Ent.), *allotype*, female (No. 5258), and thirteen paratypes from **San Quintin**, August 2, 1938, on *Haplopappus parishii* (Greene). Additional paratypes: two females, Hamilton Ranch, August 2, 1938, and two females and six males from Rio San Telmo, August 3, 1938. All specimens were taken by Michelbacher and Ross.

*Crossidius australis* is perhaps best compared with *C. testaceus* LeConte from which it may be distinguished by the much coarser punctation, shining pronotum, and the elytral pattern. In form and color it is suggestive of *C. punctatus* LeConte, but it differs at once from that species in the very distinct

elytral costae. The black sutural vitta is present in all but one of the twenty-five specimens at hand. In some of the females there is a tendency for the vitta to expand apically, sometimes nearly to the lateral margins.

(72) ***Oxoplus cruentus* LeConte**

*Oxoplus cruentus* LECONTE, 1862, Proc. Acad. Nat. Sci. Phila., 1862: 42<sup>1</sup>; HORN, 1885, Trans. Am. Ent. Soc., 12: 175; LENG, 1886, Entom. Amer., 2: 102.

*Oxoplus cruentatus*, HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338.

One example of this beautiful species was taken on the leaves of an unknown plant by Michelbacher and Ross.

Type locality: San José del Cabo<sup>1</sup>.

New Record: Miraflores, July 8.

(73) ***Oxoplus marginatus* LeConte**

*Oxoplus marginatus* LECONTE, 1862, Proc. Acad. Nat. Sci. Phila., 1862: 42<sup>1</sup>; LECONTE, 1885, Trans. Am. Ent. Soc., 12: 23; HORN, 1885, Trans. Am. Ent. Soc., 12: 175; LENG, 1886, Entom. Amer., 2: 102; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 338.

In this species the pronotum is sometimes wholly or partially rufotestaceous or brownish, but apparently never brilliantly red as in the preceding. Nine examples were captured by Michelbacher and Ross and I have seen others from San José del Cabo in various collections. It is apparently confined to the Cape Region.

Type locality: San José del Cabo<sup>1</sup>.

New records: Triunfo, July 13; 5 miles west of San Bartolo, July 13; Miraflores, July 8.

(74) ***Plionoma rubens* (Casey)**

*Sphaenothecus rubens* CASEY, 1891, Ann. N. Y. Acad. Sci., 8: 34<sup>1</sup>; HAMILTON, 1892, Can. Ent., 24: 160.<sup>2</sup>

*Sphaenothecus suturalis* var. *rubens*, HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 171<sup>3</sup>.

*Plionoma rubens*, CASEY, 1912, Mem. Coleopt., 3: 334.

Thirty-four specimens, only seven of which were females, were beaten from "catclaw" by Michelbacher and Ross. The length of the antennae of the males varies considerably, but the lateral punctation of the pronotum and elytra is fine and dense in all of the examples.

Recorded distribution: southwestern United States: Texas<sup>2</sup>, New Mexico<sup>3</sup>, Arizona<sup>1</sup>, California<sup>1</sup>.

Type locality: "Southern Arizona"<sup>1</sup>.

New records: 7 miles south of El Mármol, June 18; Chapala Dry Lake, June 21.

Host: *Acacia greggii*.

(75) ***Plionoma basalis* (Horn)**

*Sphaenothecus basalis* HORN, 1894, Proc. Calif. Acad. Sci. (2) 4: 401<sup>1</sup>.

*Sphaenothecus basalis*, HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 171.

*Sphaenothecus* (?*Entomosterna*) *basalis*, LENG, 1920, Catal. Coleopt. N. A., p. 280.

This species is very similar in form to *P. suturalis* (Lec.) and *P. rubens* (Casey) but differs in color and vestiture. The basal one-third of the elytra and the femora are dark reddish. The five specimens taken by Michelbacher and Ross were all beaten from mesquite. They encountered the species both in the Cape Region and the northern deserts.

*Lectotype*: No. 66, Calif. Acad. Sci., Ent., ♂.

Type locality: San José del Cabo.

Recorded distribution: Lower California: San José del Cabo<sup>1</sup>, Sierra El Chinche<sup>1</sup>.

New records: 7 miles south of El Mármol, June 18; Catavina, June 19; Chapala Dry Lake, June 21; Triunfo, July 13.

Host: *Prosopis*.

#### (76) *Taranomis bivittata* (Dupont)

*Sphaenothecus bivittatus* DUPONT, 1838, Mag. Zool., (1) 9: 58<sup>1</sup>; GUERIN, 1844, Icon. Regn. Anim., Ins., p. 250; LINSLEY, 1934, Pan-Pac. Ent., 10: 61 (record)<sup>2</sup>.

*Sphenothecus bivittatus*, BATES, 1880, Biol. Centr.-Amer., Coleopt., 5: 84.

*Ischocnemis bivittatus*, LENG, 1887, Entom. Amer., 2: 193.

*Taranomis bivittata*, CASEY, 1912, Mem. Coleopt., 3: 333.

*Leptocera bilineata* GORY, 1839, in: GUÉRIN, Icon. Regn. Anim., Ins., pl. 45, f. 9; CASTELNAU, 1840, Hist. nat. Ins. Coleopt., 2: 490, pl. 34, f. 4.

This widespread Sonoran insect has not as yet been taken on the mainland of Lower California, although it must surely occur there since it has been found on Carmen Island.

Type locality: Mexico<sup>1</sup>.

Recorded distribution: southwestern United States: Texas to southern California; central and northern Mexico; Gulf of California: Carmen Island<sup>2</sup>.

#### (77) *Taranomis pallida* (Schaeffer)

*Ischocnemis pallida* SCHAEFFER, 1905, Mus. Brooklyn. Inst. Arts Sci., Bull. 1: 132<sup>1</sup>.

*Taranomis?* *pallida*, CASEY, 1912, Mem. Coleopt., 3: 334.

*Sphaenothecus* (?*Entomosterna*) *pallidus*, LENG, 1920, Catal. Coleopt. N. Am., p. 280.

*Sphaenothecus pallidus*, LINSLEY, 1934, Pan-Pac. Ent., 10: 61 (record)<sup>2</sup>.

*Ischocnemis pallida* Schaeffer may not be strictly congeneric with the preceding species since the prosternum is not protuberant, but it seems better referable to *Taranomis* than to any of the genera with which it has been previously associated. In addition to the differences in the prosternum, *pallida* may be distinguished from *bivittata* by its smaller size, more robust form, densely, finely punctate abdomen, and the shorter, more strongly serrate antennae of the female.

Type locality: Santa Rosa, Lower California<sup>1</sup>.

Recorded distribution: Lower California: Santa Rosa<sup>1</sup>, Agua Verde<sup>2</sup>; Gulf of California: Tiburon Island<sup>2</sup>, San José Island<sup>2</sup>.

Host: *Cercidium*<sup>2</sup>.



(78) *Parevander xanthomelas* (Guerin)

*Amphidesmus xanthomelas* GUÉRIN, 1844, Rev. Zool., 1844: 258<sup>1</sup>; GUÉRIN, 1844, Mag. Zool.,

XIV, Ins., p. 3, pl. 146; HORN, 1874, Trans. Am. Ent. Soc., 5: 150 (record)<sup>2</sup>.

*Evander xanthomelas*, BATES, 1880, Biol. Centr.-Amer., 5: 72<sup>3</sup>.

*Parevander xanthomelas*, AURIVILLIUS, 1912, Coleopt. Catal., 39: 453.

This species was recorded from Lower California by Horn on the basis of specimens in the Jardin des Plantes, Paris. I have not seen any examples from the peninsula. The species is rather common in southern and central Mexico.

Type locality: Mexico<sup>1</sup>.

Recorded distribution: Guatemala<sup>3</sup>; Mexico<sup>1,3</sup>; Lower California<sup>2</sup>.

(79) *Dendrobias mandibularis* Serville

*Dendrobias mandibularis* SERVILLE, 1834, Ann. Soc. Ent. France, 3: 42<sup>1</sup>; DUPONT, 1836,

Mag. Zool., 6: 23, pl. 151, f. 1; LENG, 1886, Entom. Amer., 2: 61, pl. 2, f. 6; HORN, 1894,

Proc. Calif. Acad. Sci., (2) 4: 338 (record)<sup>2</sup>; CASEY, 1912, Mem. Coleopt., 3: 315;

GROSSBECK, 1912, Bull. Am. Mus. Nat. Hist., 31: 325 (record)<sup>3</sup>; CRAIGHEAD, 1922, Can.

Dept. Agr., Bull., 27: 81<sup>4</sup>.

*Trachyderes mandibularis*, CASTELNAU, 1840, Hist. Nat. Ins. Coleopt., 2: 416.

*Dendrobias quadrimaculatus* DUPONT, 1836, Mag. Zool., 6: 22, pl. 151, f. 2.

*Dendrobias 4-maculatus*, LECONTE, 1861, Proc. Acad. Nat. Sci. Phila., 1861: 335 (record)<sup>5</sup>.

*Dendrobias peninsularis* CASEY, 1912, Mem. Coleopt., 3: 316, *n. syn.*

Only one example of this widespread and well known species was taken by Michelbacher and Ross. Additional Lower California material has been seen from the following localities: Eureka Ranch (C.A.S.), Santa Rosa (Beyer, C.A.S.), and San José del Cabo (C.A.S.).

Type locality: Mexico<sup>1</sup>.

Recorded distribution: Southwestern United States: Texas to southern California; Mexico; Lower California<sup>5</sup>: San José del Cabo<sup>2</sup>, Cape Region between San José and Triunfo<sup>3</sup>.

New Record: Loreto, June 20.

Hosts: *Parkinsonia*<sup>4</sup>, *Salix*.

(80) *Lissonotus flavocinctus puncticollis* (Bates)

*Lissonotus multifasciatus* var. *puncticollis* BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 333<sup>1</sup>.

*Lissonotus multifasciatus*, LENG, 1886, Entom. Amer., 2: 62, pl. 3, f. 7<sup>2</sup>; HORN, 1894, Proc.

Calif. Acad. Sci., (2) 4: 338 (record)<sup>3</sup>; GROSSBECK, 1912, Bull. Am. Mus. Nat. Hist., 31:

325 (record)<sup>4</sup>.

*Lissonotus lucanus* CASEY, 1912, Mem. Coleopt., 3: 317<sup>5</sup>, *n. syn.*

This species is extremely variable in size, coloration, and punctation, but apparently the Lower California forms, to which Bates gave the name *puncticollis*, are sufficiently distinct for subspecific recognition.

Type locality: "Cape St. Lucas, Californie"<sup>1</sup>.

Recorded distribution: northern Mexico; southwestern United States: Arizona<sup>2</sup>, California<sup>2</sup>; Lower California: Cape San Lucas<sup>1</sup>, San José del Cabo<sup>3,5</sup>; Cape Region between San José and Triunfo<sup>4</sup>.

Lower California specimens are at hand from Santa Rosa (Beyer, C.A.S., Leng-Cazier), San José del Cabo (C.A.S.), and the Cape Region between San José and Triunfo (Leng-Cazier). A female from the latter "locality" is entirely black, without elytral fasciae.

### (81) *Ipochnus fasciatus* LeConte

*Ipochnus fasciatus* LECONTE, 1852, Jour. Acad. Nat. Sci. Phila., (2) 2: 167<sup>1</sup>; CASEY, 1891, Ann. N. Y. Acad. Sci., 6: 45; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 104; CASEY, 1913, Mem. Coleopt., 4: 280; LINSLEY, 1934, Pan-Pac. Ent., 10: 61 (record)<sup>2</sup>.

Specimens captured by Michelbacher and Ross extend the range of this wingless longicorn southward by nearly one hundred miles. Casey (1891, 1913) has applied names to a number of forms of this species but the exact status of these remain to be determined. The series of specimens at hand, mostly from southern California on a wide variety of hosts (*Quercus*, *Juglans*, *Rhus*, *Pinus*, etc.) exhibits a great deal of individual variation, none of which appears to be geographically or host specifically segregable.

Type locality: San Diego, California<sup>1</sup>.

Recorded distribution: southern California; Lower California: San Quintin<sup>2</sup>, San Martin Island<sup>2</sup>.

New Records: 19 miles east of Rosario, June 17; 10 miles south of Punta Prieta, June 21.

### (82) *Ipochnus insularis* Blaisdell

*Ipochnus insularis* BLAISDELL, 1925, Proc. Calif. Acad. Sci., (4) 14: 340<sup>1</sup>.

This species is larger than *fasciatus* and may be separated by the asperate elytra and different pubescent pattern. Only the type series is known (eight examples in the collection of the California Academy of Sciences).

Type locality: Middle San Benito Island<sup>1</sup>.

### (83) *Moneilema (Collapteryx) subrugosa* Bland

*Moneilema subrugosum* BLAND, 1862, Proc. Ent. Soc. Phila., 1: 268<sup>1</sup>; LECONTE, 1873, Smithsonian. Misc. Coll., XI, 264: 230; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>2</sup>.

*Omoscyon subrugosum*, THOMSON, 1876, Physis, 1: 75.

*Moneilema (Collapteryx) subrugosum*, HORN, 1885, Trans. Am. Ent. Soc., 12: 183, 187; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 105.

*Moneilema (Collapteryx) subrugosa*, CASEY, 1913, Mem. Coleopt., 4: 289.

*Moneilema (Collapteryx) subrugosum*, PSOTA, 1930, Coleopt. Contr., 1: 136<sup>3</sup>, pl. 8, f. 3-8, pl. 21, f. 1-3; LINSLEY, 1934, Pan-Pac. Ent., 10: 61 (record)<sup>4</sup>.

*Moneilema (Collapteryx) opaca* CASEY, 1913, Mem. Coleopt., 4: 289.

*Moneilema (Collapteryx) lateralis* CASEY, 1924, Mem. Coleopt., 11: 287<sup>5</sup>.

In this species the pronotum is opaque and sparsely punctured, with the punctures coarser and closer along the apical and basal margins. The elytra are subopaque and moderately rugose, the antennae usually black, occasionally with the fourth segment annulate. It is apparently restricted to the Cape Region.

Type locality: "Cape St. Lucas"<sup>1</sup>.



Recorded distribution: Gulf of California: Carmen Island<sup>1</sup>; Lower California: San José del Cabo<sup>2</sup>, Cape San Lucas<sup>1</sup>, El Taste<sup>5</sup>, San Felipe<sup>3</sup>, Santa Rosa<sup>3</sup>.

New Records: 5 miles west of San Bartolo, July 13; 5 miles south of Miraflores, July 10; 10 miles southwest of San José del Cabo, July 9.

Host: *Lophocereus australis* Brandigee.

Twenty specimens were taken by Michelbacher and Ross, all on the above mentioned species of cactus. Additional material has been seen from Cape San Lucas.

#### (84) *Moneilema (Collapteryx) rugosissima* Casey

*Moneilema (Collapteryx) rugosissima* CASEY, 1924, Mem. Coleopt., 11: 288<sup>1</sup>.

*Moneilema (Collapteryx) subrugosum*, PSOTA, 1930, Coleopt. Contr., 1: 136 (pars)<sup>3</sup>.

*M. (C.) rugosissima* Casey, was placed by Psota (1930) in synonymy with *M. (C.) subrugosa* Bland, but as a result of the very fine series (one hundred and twenty-six specimens) brought back by Michelbacher and Ross, it is now possible to determine that *rugosissima* is distinct in structure, host, and distribution. It may be distinguished readily by the shining pronotum and elytra, the first of which is coarsely closely punctured, the latter very strongly rugose.

Type locality: Santa Rosa, Lower California<sup>1</sup>.

New Records: 10 miles south of Catavina, July 29; Mesquital, July 28; 25 miles south of Santa Rosalia, July 25; 15 miles north of El Refugio, July 4; Venancio, July 17.

Host: *Lophocereus schottii* (Engelmann).

This species was found by Michelbacher and Ross only in the arid portion of the peninsula northward from the Cape Region on *Lophocereus schottii* but other specimens have been seen by the writer from the type locality, Santa Rosa (Beyer, Leng-Cazier).

#### (85) *Moneilema (Collapteryx) semipunctata* LeConte

*Monilema semipunctatum* LECONTE, 1852, Jour. Acad. Nat. Sci. Phila., (2) 2: 167<sup>1</sup>; LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 229.

*Monilema (Collapteryx) semipunctatum*, HORN, 1885, Trans. Am. Ent. Soc., 12: 183, 185<sup>2</sup>; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>3</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 105.

*Moneilema (Collapteryx) semipunctatum*, PSOTA, 1930, Coleopt. Contr., 1: 134; LINSLEY, 1934, Pan-Pac. Ent., 10: 61 (record)<sup>4</sup>.

This species is apparently confined to the Cape Region. The pronotum is punctured with fine and coarse punctures intermixed, the elytra with only the basal two-thirds punctate. The sculpturing of the antennal scape and femora is almost as strong as in *subrugosa* Bland.

Type locality: "Valecitas, California"<sup>1</sup>.

Recorded distribution: Lower California: Valecitas<sup>1</sup>, San Pedro<sup>4</sup>, Cape San Lucas<sup>2, 3</sup>.

(86) **Moneilema (Collapteryx) sp.**

One specimen, taken by Michelbacher and Ross three miles north of San Pedro, July 6 differs from *semipunctata* LeConte in the stronger lateral spine of the pronotum, and by having the pronotum and elytra as closely and very nearly as coarsely punctate and rugose as *rugosissima* Casey. Whether this represents a distinct species or merely an individual variant, it is impossible to determine on the basis of the single example.

(87) **Moneilema (Collapteryx) michelbacheri** Linsley, new species

Male: Form elongate, robust; color black, shining; subglabrous. *Head* irregularly punctured; face shining, punctures not dense but varying in size and spacing, coarser and denser laterally; vertex dull, punctures of moderate size, separated by from one to several puncture widths, interspaces micropunctate; antennae attaining apical one-third of elytra, without pale annulations, segments micropunctate and minutely pubescent. *Pronotum* a little wider than long, sides armed with a blunt lateral spine; surface shining, variably punctate but with the majority of the punctures small, irregularly placed, distinct, larger punctures scattered, most numerous at base and apex, interspaces micropunctate; sides of pronotum below tubercle very coarsely, closely punctured; pro-, meso-, and metasterna finely punctate. *Legs* robust; femora finely punctate; posterior tibiae coarsely punctate apically and clothed with short, suberect, black setae. *Elytra* elongate oval, shining; surface strongly punctured at base with the punctures set in subangular depressions, finer and more scattered over apical one-third, interspaces micropunctate. *Abdomen* finely, densely punctured, densely clothed with very fine, obscure, dark pubescence. Length 18–24.5 mm.

Female: Generally larger and a little more robust; antennae barely surpassing middle of elytra. Length: 22–27 mm.

*Holotype*, male (No. 5259, Mus. Calif. Acad. Sci., Ent.), *allotype*, female (No. 5260), and twenty-seven paratypes from **fifteen miles north of Punta Prieta**, July 29, 1939, on *Opuntia bigelovii*. Additional paratypes: two specimens from ten miles south of Catavina, July 29, 1939, one from fifteen miles north of San Ignacio, July 26, one from twenty-five miles south of Santa Rosalia, July 25, and four examples from twenty miles north of Comondú, July 23. All were taken by Michelbacher and Ross. The two specimens from ten miles south of Catavina were captured in midmorning, the remainder at night as a result of searching with a lantern.

Related to *M. (C.) semipunctata* LeConte but differing by having the elytra strongly punctured basally and fine punctures scattered over the apical one-third. *M. (C.) spoliata* Horn was described from San Borgia, which is in the same general region, but in that species the antennae are annulate, and the pronotal and elytral sculpturing quite different.



(88) *Moneilema (Collapteryx) spoliata* Horn

*Monilema (Collapteryx) spoliatum* HORN, 1885, Trans. Am. Ent. Soc., 12: 186<sup>1</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 105.

*Monilema spoliatum*, HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>2</sup>.

*Moneilema (Collapteryx) spoliatum*, PSOTA, 1930, Coleopt. Contr., 1: 135<sup>3</sup>; pl. 7, f. 3-6, pl. 20 f. 1-2.

No lower California specimens of this species have been seen by the writer. Examples from southern California referred to *spoliatum* by Psota and others vary in the annulation of the antennae, but in all of the specimens at hand, at least two of the segments from three to seven have their basal halves ringed with white pubescence. The apical half of the elytra is impunctate, and the lateral pronotal spine short, acute. According to Psota, *spoliata* is scarcely separable from *M. (C.) forte* LeConte.

Type locality: "Peninsula of California near the northern boundary."<sup>1</sup>

Recorded distribution: southern California<sup>3</sup>; Lower California: San Borgia<sup>2</sup>.

(89) *Moneilema (Collapteryx) gigas* LeConte

*Monilema gigas* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 230<sup>1</sup>.

*Monilema (Collapteryx) gigas*, HORN, 1885, Trans. Am. Ent. Soc., 12: 183, 185; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 105.

*Moneilema (Collapteryx) gigas*, PSOTA, 1930, Coleopt. Contr., 1: 130<sup>2</sup>, pl. 5, f. 1-3, pl. 19, f. 1-2; LINSLEY, 1934, Pan-Pac. Ent. 10: 61 (record)<sup>3</sup>.

*Moneilema (Collapteryx) constricta* CASEY, 1913, Mem. Coleopt., 4: 285.

*Moneilema (Collapteryx) uteana* CASEY, 1913, Mem. Coleopt., 4: 285<sup>4</sup>.

*Moneilema (Collapteryx) pimalis* CASEY, 1913, Mem. Coleopt., 4: 285.

*Moneilema (Collapteryx) spinicollis* CASEY, 1913, Mem. Coleopt., 4: 286.

*Moneilema (Collapteryx) pollens* CASEY, 1913, Mem. Coleopt., 4: 286.

*Moneilema (Collapteryx) plectralis* CASEY, 1924, Mem. Coleopt., 11: 286.

*Moneilema (Collapteryx) colossa* CASEY, 1924, Mem. Coleopt., 11: 289.

Psota (1930) is the authority for the above synonymy of the names proposed by Casey (1913, 1924).

Type locality: Arizona<sup>1</sup>.

Recorded distribution: southwestern United States: Texas<sup>2</sup>, New Mexico<sup>2</sup>, Utah<sup>4</sup>, Arizona<sup>1</sup>; Mexico: San Pedro Bay<sup>3</sup>; Gulf of California: San Lorenzo Island<sup>3</sup>.

(90) *Neoptychodes trilineatus* (Linnaeus)

*Cerambyx trilineatus* LINNAEUS, 1771, Mant. Plant., 2: 532<sup>1</sup>; DRURY, 1770-73, Ill. Exot. Ins., 1: 91, pl. 14, fig. 1; FABRICIUS, 1775, Syst. Ent., p. 179.

*Stenocorus trilineatus*, FABRICIUS, 1781, Spec. Ins., 1: 226.

*Ptychodes trilineatus*, CASTELNAU, 1840, Hist. Nat. Ins. Coleopt., 2: 480; LECONTE, 1852, Jour. Acad. Nat. Sci. Phila., (2) 2: 146<sup>2</sup>; CHEVROLAT, 1862, Ann. Soc. Ent. France, (4) 2: 255; BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 337; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>3</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 110; HEYNE and TASCHENBERG, 1906, Exot. Käfer, p. 241, pl. 37, f. 6; CASEY, 1913, Mem. Coleopt., 4: 294; HORTON, 1917, Jour. Agr. Res., 11: 371, pls. 35-37 (biol.)<sup>4</sup>; CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 105 (biol.)<sup>5</sup>.

*Neoptychodes trilineatus*, DILLON and DILLON, 1941, Reading Mus., Sci. Publ., 1: 45; pl. 3, f. 19, 20, pl. 4, f. 12<sup>a</sup>.

*Saperda vittata* FABRICIUS, 1776, Gen. Ins., p. 231; FABRICIUS, 1781, Spec. Ins., 1: 233; FABRICIUS, 1787, Mant. Ins., 2: 149; FABRICIUS, 1792, Ent. Syst., 1: 312; FABRICIUS, 1802, Syst. Eleuth., 2: 322.

*Ptychodes vittatus*, HALDEMAN, 1847, Trans. Am. Philos. Soc., 10: 53.

This widespread tropical and subtropical species bores in dead and dying fig trees. A good account of its habits has been given by Horton (1917). Lower California examples have been seen from El Tasté (Leng-Cazier) and San José del Cabo (C.A.S.).

Type locality: Jamaica.

Recorded distribution: South America; Oceania: Tahiti; Central America; West Indies; Mexico; southern and southwestern United States: Florida to Arizona; Lower California: San José del Cabo<sup>3, 6</sup>, La Paz<sup>6</sup>, El Tasté<sup>6</sup>.

Hosts: *Ficus*<sup>2, 4, 6</sup>, *Alnus*<sup>5, 6</sup>, *Morus*<sup>5, 6</sup>.

### (91) *Lagochirus procerus* Casey

*Lagochirus procerus* CASEY, 1913, Mem. Coleopt., 4: 304<sup>1</sup>.

*Lagochirus obsoletus*, HORN, 1880, Trans. Am. Ent. Soc., 7: 117; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>2</sup>.

*Lagochirus obsoletus*, LENG and HAMILTON, 1896, Am. Ent. Soc., 23: 115.

This species was identified by Horn as *L. obsoletus* Thomson, but as was pointed out by Casey, the Lower California specimens differ from the Thomson species by having the post-median elytral fasciae distinct. In addition, the series captured by Michelbacher and Ross, as well as all other specimens that I have seen from the peninsula, average from six to eight millimeters longer than *obsoletus* (as represented by specimens from central Mexico, Tres Marias Islands, and Hawaiian Islands). They thus resemble *L. araeiformis* (Linn.) but may be distinguished by the annulate antennae and form of the elytra, which are punctured over apical three-fourths, and have simple, non-muricate humeri, feeble discal tufts, and usually more sharply truncate apices.

Type locality: Santa Rosa, Lower California<sup>1</sup>.

Recorded distribution: Lower California: Santa Rosa<sup>1</sup>, San José del Cabo<sup>2</sup>.

New records: Coyote Cove, Concepcion Bay, July 24; 20 miles north of Comondu, July 23; 15 miles west of La Paz, July 5; 3 miles north of San Pedro, July 6; Miraflores, July 8; Todos Santos, July 15.

Host: *Elaphrium* sp.

The Michelbacher and Ross specimens were mostly cut out of or taken on dead *Elaphrium*. Additional material has been seen from Santa Rosa (Beyer, Leng-Cazier) and San José del Cabo (C.A.S.).

### (92) *Coenopoeus niger* Horn

*Coenopoeus niger* HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 402<sup>1</sup>; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 176.

In this species the elytra are uniformly black and more coarsely, closely

punctured than in *C. palmeri* (Lec.). In addition to the type series I have seen numerous specimens in various collections from Santa Rosa (Beyer). The species was not found by Michelbacher and Ross but apparently occurs in the mountains of the Cape Region.

*Lectotype*: No. 70, Calif. Acad. Sci., Ent.

Type locality: El Chinche, 2000 ft.

### (93) *Leptostylus biustus* LeConte

*Leptostylus biustus* LeConte, 1852, Jour. Acad. Nat. Sci. Phila., (2) 2: 169<sup>1</sup>; LeConte, 1873, Smithson. Misc. Coll., XI, 264: 233; Horn, 1880, Trans. Am. Ent. Soc., 8: 121; Horn, 1895, Proc. Calif. Acad. Sci., (2) 5: 228 (record)<sup>2</sup>; Gahan, 1895, Trans. Ent. Soc. Lond., 1895: 134; Leng and Hamilton, 1896, Trans. Am. Ent. Soc., 23: 119; Blatchley, 1910, Coleopt. Indiana, p. 1072; Craighead, 1923, Can. Dept. Agr., Bull. 27: 116<sup>3</sup>.

*Exocentrus biustus*, Chevrolat, 1862, Ann. Soc. Ent. France, (4) 2: 249.

Lower California specimens of this species have not been seen by the writer. It is apparently very widely distributed and has a large number of host plants.

Type locality: "Southern and Middle States."<sup>1</sup>

Recorded distribution: Atlantic Coast and Southern States; West Indies; Lower California: San José del Cabo<sup>2</sup>.

Hosts: *Morus*, *Rhus*, *Mimosa*, *Celtis*, etc.<sup>3</sup>

### (94) *Leiopus crassulus* (LeConte)

*Sternidius crassulus* LeConte, 1873, Smithson. Misc. Coll., XI, 264: 235<sup>1</sup>.

*Liopus crassulus*, Horn, 1880, Trans. Am. Ent. Soc., 8: 124, 125; Horn, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record); Leng and Hamilton, 1896, Trans. Am. Ent. Soc., 23: 122.

*Leiopus crassulus*, Casey, 1913, Mem. Coleopt., 4: 316.

The genus *Leiopus* is in great need of revisional study. The species are numerous, but difficult to distinguish by tangible characters. *L. crassulus* was described from Lower California, and various species from eastern North America have been referred to it. Most of these species resemble *Leptostylus biustus* LeConte in the elytral pattern but have the typical form of *Leiopus*. The present species has the form of *Leptostylus biustus* but not the elytral pattern. Thus far I have seen no specimens from outside of Lower California which can, in my opinion, be considered *crassulus* LeConte. *L. mimeticus* Casey, which has been improperly treated as a synonym, is distinct in the narrower form, denser pubescence, finer punctuation of the pronotum and base of the elytra, larger pronotal tubercles, and narrower truncation of the elytral apices.

Type locality: Cape San Lucas<sup>1</sup>.

New records: San Domingo, July 19; 20 miles north of Comondú, July 19; 15 miles north of El Refugio, July 24; and 45 miles north of San Ignacio, July 27.

Most of the Michelbacher and Ross specimens were captured at light.

(95) *Leiopus rosaliae* Linsley, new species

Form small, robust; color reddish brown; pubescence short, depressed, dense, uniformly white, without any erect scales. *Head* minutely, closely punctured, densely clothed with white pubescence; antennae longer than the body, segments annulated, scape slender, third segment scarcely longer than fourth, remaining segments decreasing gradually in length. *Pronotum* transverse, sides oblique to apex of lateral spines; lateral spines acute; surface shining where denuded, coarsely but not regularly or closely punctured, the punctures elongated longitudinally, varying from nearly adjoining to several puncture widths apart; pubescence dense; prosternum rugoso-punctate, pubescent; mesosternum with intercoxal process nearly as wide as intermediate coxae; metasternum and metepisterna finely, closely punctured, densely pubescent; scutellum transverse, broadly rounded posteriorly, finely punctate, white pubescent. *Legs* robust, finely, closely punctured, densely clothed with appressed white hairs; posterior tarsi with first segment longer than following two together. *Elytra* coarsely punctured, the punctures not perceptibly smaller apically; pubescence dense, uniformly white, without spots of erect, black setae; apices obliquely truncate. *Abdomen* finely, closely punctured, densely clothed with white pubescence. Length: 4.75 mm.

*Holotype*, (No. 5261, Mus. Calif. Acad. Sci., Ent.) from **twelve miles south of Santa Rosalia** July 27, 1938, collected by A. E. Michelbacher and E. S. Ross.

This species may be readily recognized by the uniform white pubescence and absence of tufts of erect scales on the elytra. It is of the size and form of *L. alpha* (Say), but, in addition to the different style of ornamentation, it may be separated from that species by the broad mesosternum and transverse scutellum which is broadly rounded posteriorly.

(96) *Leiopus rossi* Linsley, new species

Female: Form moderately elongate, small; color dark brown; pubescence variegated, white, brownish, and black. *Head* finely punctate with a few coarse punctures on vertex between eyes, pubescence mostly white, fine, appressed, not concealing surface; antennae distinctly longer than body, segments variegated and annulated, third segment longer than fourth segment. *Pronotum* transverse, sides nearly straight in front of lateral spines; lateral spines blunt; surface moderately finely, regularly punctured with scattered, coarser punctures intermixed, interspaces micropunctate; pubescence fine, white, depressed; partially obscuring surface; pro-, meso-, and metasterna finely, closely punctate, clothed with white pubescence; intercoxal process of mesosternum twice as wide as that of prosternum, nearly as broad as intermediate coxae, scutellum transverse, broadly rounded posteriorly. *Legs* moderately robust, finely punctate, clothed with white pubescence. *Elytra* moderately coarsely but not closely punctate, interspaces micropunctate; surface with a very few small spots of suberect black setae, pubescence white, depressed,



partially obscuring surface, with a post-median black band forming an angle at the suture and thence running obliquely backward to the lateral margins and bounded anteriorly by a dense band of white pubescence, and a short longitudinal black band on each elytron a little less than one-half distance from oblique pubescent fascia to apex; apices truncate. *Abdomen* finely, densely, punctate, densely clothed with white pubescence. Length: 4.5 mm.

*Holotype*, female (No. 5262, Calif. Acad. Sci., Ent.) from **Comondu**, July 22, 1938, collected by A. E. Michelbacher and E. S. Ross.

This species resembles *Leiopus alpha* Say in size and form, but differs in the less coarsely punctured pronotum, obtuse lateral pronotal spines, wide intercoxal process of the mesosternum, and the transverse, broadly rounded scutellum.

(97) *Leiopus gracilipes* Linsley, new species

Male: Form moderately elongate, small; color dark brown; pubescence variegated, white, brownish, and black. *Head* finely punctured, area between eyes on vertex finely punctured, shining; pubescence mostly white, yellowish on vertex; antennae one and one-third times as long as body, segments variegated and annulated, third segment longer than fourth. *Pronotum* transverse, sides oblique to lateral spines, lateral spines blunt; surface shining, finely punctuate with elongated, coarse punctures superimposed, the coarse punctures mostly several diameters apart; pubescence white and yellowish, not concealing surface; pro-, meso-, and metasterna finely, closely punctate, clothed with white pubescence; intercoxal process of mesosternum twice as wide as that of prosternum, nearly as broad as intermediate coxae; scutellum transverse, broadly rounded posteriorly. *Legs* moderately robust, finely punctate, clothed with white pubescence, posterior tarsi slender. *Elytra* moderately coarsely but not closely punctured, interspaces micropunctate; surface clothed with depressed white pubescence with a more or less distinct tubercle on each side at base crested with black setae, and scattered small spots of suberect black setae, postmedian black band forming an angle at the suture, bounded anteriorly by a strip of dense white pubescence; apices very feebly truncate. *Abdomen* finely, densely punctate, densely clothed with white pubescence. Length: 4 mm.

*Holotype*, male (No. 5263, Mus. Calif. Acad. Sci., Ent.) from **Triunfo**, July 13, 1939, collected by A. E. Michelbacher and E. S. Ross.

*L. gracilipes* is related to *L. rossi* Linsley and resembles that species closely in size, form, and elytral pattern but may be distinguished by having the area between the eyes on the vertex shining and finely punctured, more slender tarsi, and more numerous tufts of erect and suberect black scales on the elytra.

(98) *Leiopus* sp.

A single specimen with broken antennae, belonging to the group of *L. rossi* Linsley and *L. gracilipes* Linsley, but more robust and with a different elytral pattern, was taken by Ross and Michelbacher six miles north of Triunfo, on

July 15, 1938. Apparently the specimen represents a species distinct from any others recorded in the present paper.

(99) ***Leiopus nivosus*** Linsley, new species

(Plate 4, fig. 10)

Male: Form elongate oval; color reddish brown; pubescence very dense, short, appressed, scale-like, white, with a few patches of brownish scales and tufts of black on the elytra, tarsi black. *Head* very densely pubescent, punctation completely obscured; antennae about one and one-third times as long as body, densely pubescent, segments four to six without distinct annulations, third segment barely longer than fourth segment. *Pronotum* transverse, sides oblique to apex of lateral spines, lateral spines blunt, posterior margin at right angle to the parallel-sided basal constriction; surface very densely covered with white scales, with three patches of brown scales arranged in a triangle on disk; punctation obscured by scales; prosternum densely clothed with white scales, intercoxal process broad, more than one-third the width of anterior coxae; mesosternal process at least three-fourths as wide as intermediate coxae; scutellum transverse, broadly rounded posteriorly. *Legs* robust, finely punctate, densely pubescent; apices of tibiae black and clothed with coarse, suberect, black setae; tarsi black, clothed with black hairs; first segment of posterior pair longer than following two together. *Elytra* densely clothed with white scales and with scattered, small, round spots of suberect black scales, a dark streak in lateral elytral declivity, and an oval, oblique, black patch on each side of suture just behind middle; apices obliquely truncate. *Abdomen* densely clothed with white scales. Length: 5-6 mm.

*Holotype*, male (No. 5264, Mus. Calif. Acad. Sci., Ent) and one paratype male from **Venancio**, July 17, 1938. Additional paratypes: one example from fifteen miles north of El Refugio, July 4, and one from five miles south of San Miguel, July 20, 1938. All specimens captured by Michelbacher and Ross.

This fine species may be readily known by the very dense, white scale covering and the arrangement of black spots on the elytra. Although it would not be a *Leiopus* in the sense of Bates, it seems best to refer it to that genus for the present or until such time as this difficult group can be revised generically in the light of the Neotropical fauna.

(100) ***Mecotetartus antennatus*** Bates

*Mecotetartus antennatus* BATES, 1872, Trans. Ent. Soc. Lond., 1872: 213<sup>1</sup>; HORN, 1874, Trans. Am. Ent. Soc., 5: 150 (syn.); HORN, 1880, Trans. Am. Ent. Soc., 8: 126; BATES, 1881, Biol. Centr.-Amer., Coleopt., 5: 156, pl. 12, f. 14; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>2</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 126. *Eutessus asper* LeCONTE, 1873, Smithson. Misc. Coll., XI, 264: 236<sup>3</sup>.

The antennae in this species vary from three to five times as long as the body in the male, and from one and one-half to twice as long as the body in the female. In one male at hand, the fourth antennal segment alone is twice as long as the rest of the insect.

Type locality: Chontales, Nicaragua<sup>1</sup>.

Recorded distribution: Nicaragua; Lower California: Sierra El Chinche<sup>2</sup>, Cape San Lucas<sup>3</sup>.

New records: 3 miles north of San Pedro, July 6; Triunfo, July 13; Santiago, July 8; Todos Santos, July 15.

Michelbacher and Ross found this species only in the Cape Region. Adults were captured at night on trunks of fallen trees.

### (101) *Dectes spinosus* (Say)

*Lamia spinosa* SAY, 1827, Jour. Acad. Nat. Sci. Phila., 5: 271<sup>1</sup>.

*Dectes spinosus*, LECONTE, 1852, Jour. Acad. Nat. Sci. Phila., (2) 2: 144; HORN, 1880, Trans. Am. Ent. Soc., 8: 126 HORN, 1895, Proc. Calif. Acad. Sci., (2) 5: 228 (record)<sup>2</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 126<sup>3</sup>; BLATCHLEY, 1910, Coleopt. Indiana, p. 1075; CASEY, 1912, Mem. Coleopt., 4: 342; CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 114<sup>4</sup>.

This widespread species bores in the stems of the Compositae, and was recorded from Lower California by Horn. I have seen no peninsular specimens.

Type locality: Pennsylvania<sup>1</sup>.

Recorded distribution: Atlantic and Southern States to southern California; Lower California: Sierra San Lazaro<sup>2</sup>.

Hosts: *Ambrosia*<sup>3</sup>, *Eupatorium*<sup>4</sup>, *Xanthium*<sup>4</sup>, etc.

### (102) *Acanthoderes peninsularis* Horn

(Plate 5, fig. 4)

*Acanthoderes peninsularis* HORN, 1880, Trans. Am. Ent. Soc., 8: 116<sup>1</sup>; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339 (record)<sup>2</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 114; SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 345<sup>3</sup>; GROSSECK, 1912, Bull. Am. Mus. Nat. Hist., 31: 325 (record)<sup>4</sup>; LINSLEY, 1934, Pan-Pac. Ent., 10: 62 (record)<sup>5</sup>.

In the series of eighty-three specimens at hand, two forms of this species are apparent. Those from the Cape Region are more robust, with the integument reddish brown and the elytral pattern less clearly defined. This is the form which was described by Horn, and was taken in numbers by Ross and Michelbacher on *Pachycereus pecten-aboriginum*. The second type occurs north of the Cape Region and extends into southern Arizona. It has the integument black, the form more elongate, and the elytral pattern very clearly defined, and was taken by Michelbacher and Ross on *Pachycereus pringlei*. Both types were also occasionally captured at light.

Type locality: "Peninsula of Lower California".<sup>1</sup>

Recorded distribution: New Mexico<sup>3</sup>, Arizona<sup>3</sup>; Lower California: San Martin Island<sup>5</sup>, Cape Region between San Jose and Triunfo<sup>4</sup>, San José del Cabo<sup>2</sup>.

New records: 14 miles south of El Arco Mine, June 23; 45 miles north of San Ignacio, July 27; 15 miles north of San Ignacio, June 24; Venancio, July 17; 20 miles northwest of La Paz, July 16; 15 miles west of La Paz, July 5;

3 miles north of San Pedro, July 6; 3 miles north of Triunfo, July 15; Triunfo, July 13; Santiago, July 8; Miraflores, July 8; 5 miles south of Miraflores, July 10.

In addition to the above material, I have seen specimens from Cape San Lucas (C.A.S.), Santa Rosa (Beyer), San José del Cabo (Leng-Cazier) in Lower California, Cuernavaca and Venedio on the mainland of Mexico (C.A.S.) and Nogales in southern Arizona (Linsley).

(103) **Peritapnia nudicornis** (Bates)

*Tapaeina* (?) *nudicornis* BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 421<sup>1</sup>.

*Tapaeina nudicornis*, HORN, Proc. Calif. Acad. Sci., (2) 4: 340<sup>2</sup>.

*Peritapnia nudicornis*, HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 403; LINSLEY, 1934, Pan-Pac. Ent., 10: 62 (record)<sup>3</sup>.

In the genus *Peritapnia* antennae of the males are heavier than those of the females with the basal segments swollen, the anterior femora are toothed, and the fifth abdominal sternite is simple. In the female the fifth sternite is excavated subapically with the excavation bounded posteriorly by a transverse, slightly arcuate carina. The present species is more or less shining, black, with the elytra sparsely, irregularly punctured, the abdomen polished, and the intercoxal process of the prosternum usually about two-thirds as wide as the coxae. However, in the series of thirty-eight specimens taken by Michelbacher and Ross all of these characters exhibit some variation.

Type locality: Oaxaca, Mexico<sup>1</sup>.

Recorded distribution: southern Mexico; Gulf of California: San José Island<sup>2</sup>; Lower California: Sierra El Chinche<sup>2</sup>.

New records: 15 miles north of El Refugio, July 4; 20 miles northwest of La Paz, July 16; 15 miles west of La Paz, July 5; 3 miles north of San Pedro, July 6; Todos Santos, July 15; San Bartolo, July 13; San José del Cabo, July 13; 10 miles southwest of San José del Cabo, July 9; and 8 miles north-east of Cape San Lucas, July 10.

Host: *Elaphrium*.

All but four of the examples taken by Michelbacher and Ross were captured in the Cape Region. Some of the specimens were taken under bark of *Elaphrium*.

(104) **Peritapnia fabra** Horn

*Peritapnia fabra* HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 404<sup>1</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 134; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 177 (syn.).

*Acanthoderes wickhami* LENG, 1896, Trans. Am. Ent. Soc., 23: 114<sup>2</sup>.

This species differs from the preceding in its larger size, dull brown color, more regularly punctured elytra, and the very narrow intercoxal process of the prosternum. However, in the series taken by Michelbacher and Ross there are two types, forms which agree with those from southern Arizona described by Horn, and forms which agree rather closely with *P. nudicornis* (Bates) in



the type of elytral punctation, have reddish legs, and opaque abdomen, and the prosternal process about one-half as wide as the coxa (usually about one-fourth as wide as coxa in *fabra*, two-thirds as wide in *nudicornis*). At first I was inclined to consider these a distinct species, but an examination of the entire series of all three forms (including *nudicornis*) revealed so much variation and apparently little geographical or host correlation that it seemed best to group them for the present under but two names. However, *P. fabra* (Horn) has been taken on *Opuntia* in Arizona, some of the specimens below were removed from Elephant Wood (*Veatchia discolor*), and a portion of the series of *nudicornis* was captured under bark of *Elaphrium*. These facts suggest that the whole complex requires further study from both the biological and taxonomic standpoint.

Type locality: "Arizona, south of Tucson"<sup>1</sup>.

Recorded distribution: Arizona: Tucson Mountains<sup>2</sup>.

Host: *Opuntia*<sup>2</sup>, *Veatchia discolor*, (Michelbacher and Ross).

New records: 10 miles south of Punta Prieta, July 21; 45 miles north of San Ignacio, July 27; 25 miles south of Santa Rosalia, July 25; Coyote Cove, Concepcion Bay, July 24; 15 miles north of El Refugio, July 4.

Whereas *P. nudicornis* (Bates) was found by Michelbacher and Ross mainly in the Cape Region, *P. fabra* Horn was taken only in the area north of the Cape. The only locality where both species were taken together was fifteen miles north of El Refugio. This species has not been previously recorded from Lower California.

### (105) *Oncideres rhodosticta* Bates

*Oncideres rhodosticta* BATES, 1885, Biol. Centr. Amer., Coleopt., 5: 367<sup>1</sup>; LINSLEY, 1940, Jour. Econ. Ent., 33: 562 (syn.).

*Oncideres putator*, HORN, 1885, Trans. Am. Ent. Soc., 12: 195<sup>2</sup>; SCHAEFFER, 1906, Can. Ent., 38: 19.

*Oncideres cingulatus*, HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 141 (pars).

*Oncideres trinodata* CASEY, 1913, Mem. Coleopt., 4: 352<sup>3</sup>.

*Oncideres* sp., CRAIGHEAD, 1923, Can. Dept. Agr., Bull. 27: 132<sup>4</sup>.

*Oncideres pustulatus*, ESSIG, 1926, Ins. West. No. Amer., p. 460, fig. 368.

The name *Oncideres* is feminine and was properly used by Horn and Casey. The present species may be readily recognized by the three callosities in a transverse row on the pronotum, pale ante-median fascia of the elytra, and the yellowish or tawny spots with which the elytral pubescence is variegated. The species girdles mesquite in southwestern United States and northern Mexico. I have seen numerous examples from southern Arizona and northern Sonora and a single specimen labelled simply "L. Cal."

Type locality: Lerdo, Mexico<sup>1</sup>.

Recorded distribution: southwestern United States<sup>1</sup>: Texas<sup>3</sup>, Arizona<sup>2</sup>; Mexico: Lerdo<sup>1</sup>.

Hosts: *Prosopis*<sup>4</sup>, *Sarcobatus*<sup>4</sup>.

(106) **Ataxia setulosa** Fall

*Ataxia setulosa* FALL, 1907, Jour. N. Y. Ent. Soc., 15: 84.<sup>1</sup>

The form of the elytral pubescence in this species makes it very easily recognized. The vestiture is recumbent and ocherous with an intermixture of fascicles of white hairs. Two specimens, topotypical have been seen (Beyer, Leng-Cazier).

Type locality: Santa Rosa, Lower California.<sup>1</sup>

(107) **Ataxia arizonica** Fisher

*Ataxia arizonica* FISHER, 1920, Proc. Ent. Soc. Wash., 22: 158<sup>1</sup>; LINSLEY, 1934, Pan-Pac. Ent., 10: 63 (record)<sup>2</sup>.

The Lower California examples of this species which I have seen all differ from the typical form in the very dense pubescence which completely obscures the surface and the punctuation. The basal pubescence of the elytra and the lateral pronotal pubescence is almost entirely white. The Arizona material at hand (three specimens from Globe) is too limited to indicate whether or not these represent a different subspecies.

Type locality: Sabino Canyon, Arizona<sup>1</sup>.

Recorded distribution: Arizona; Lower California: San Nicolas Bay<sup>2</sup>.

New records: 15 miles north of El Refugio, July 4; Venancio, July 17; 20 miles northwest of La Paz, July 16; 15 miles west of La Paz, July 5.

Nine specimens were taken by Michelbacher and Ross, mostly at light.

(108) **Estoloides sordida** (LeConte)

(Plate 5, fig. 3)

*Pogonocherus? sordidus* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 237<sup>1</sup>.

*Estola sordida*, HORN, 1874, Trans. Am. Ent. Soc., 5: 150; HORN, 1878, Trans. Am. Ent. Soc., 7: 43; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 340 (record)<sup>2</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 134; BLAISDELL, 1925, Proc. Calif. Acad. Sci., (4) 14: 341 (record)<sup>3</sup>; LINSLEY, 1934, Pan-Pac. Ent., 10: 63 (record)<sup>4</sup>.

In this species the integument is reddish brown, the pubescence very dense, completely obscuring the surface, variegated, the antennal scape very nearly attains the base of the pronotal tubercles, and the tubercles are obtuse.

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: Gulf of California: Ildefonso Island<sup>1</sup>; Lower California: Cape San Lucas<sup>1</sup>, San José del Cabo<sup>2</sup>; Cedros Island<sup>3, 4</sup>.

New records: 15 miles north of Punta Prieta, July 29; 45 miles north of San Ignacio, July 27; 15 miles north of El Refugio, July 4; Triunfo, July 13.

Eight specimens were taken at light by Michelbacher and Ross, mainly north of the Cape Region. The Triunfo specimen is reddish brown rather than dirty gray. In addition to the material captured by Michelbacher and Ross, I have seen examples from Santa Rosa (Beyer, Leng-Cazier), Ildefonso Island (C.A.S.), Cedros Island (C.A.S.), and Venedio, Sinaloa (C.A.S.).

(109) **Estoloides sparsa** Linsley, new species

(Plate 5, fig. 2)

Male: Form robust; color piceous, dullish; vestiture short, sparse, uniform, gray, depressed, with a few, scattered, erect, black hairs intermixed. *Head* very coarsely, irregularly punctate, the punctures mostly contiguous or separated by less than the diameter of a single puncture, interspaces feebly shining, micropunctate, sparsely clothed with pale pubescence which does not obscure the surface; antennae one and one-half times as long as the body, segments finely, closely punctured and pubescent, segments three to eleven annulated with black at apex, scape robust, subconical, second segment not quite as long as broad, third segment one and one-third times as long as scape, fourth segment a little shorter than third, fifth segment a little more than one-half as long as fourth, segments six to eleven subequal in length; eyes moderately coarsely granulated, lower lobe wider than vertical length. *Pronotum* transverse; lateral tubercles slender, acute; surface coarsely, irregularly punctured, the punctures closer, subcontiguous at middle of disk, interspaces dullish, very finely punctate, clothed with fine, pale pubescence which does not obscure the surface; prosternum feebly shining, with a few coarse punctures in a transverse row in front of coxae, anterior margin finely wrinkled; scutellum rounded behind, finely punctured, moderately densely clothed with fine, prostrate, white pubescence. *Elytra* coarsely and more or less linearly punctured, the punctures becoming a little smaller and sparser apically, interspaces dullish, micropunctate; pubescence fine, sparse, uniformly pale, not variegated, not obscuring surface; apices rounded. *Legs* feebly shining, very minutely punctured, with a very few, scattered, coarse punctures; pubescence fine, pale, uniform, not concealing the surface; posterior tarsi with first segment nearly as long as the two following together. *Abdomen* dullish, tergites minutely punctured with irregularly spaced, coarse punctures superimposed, pubescence uniform, pale, not concealing surface; fifth sternite broadly rounded at apex. Length: 8–10 mm.

Female: Antennae nearly as long as the body; fifth abdominal sternite nearly twice as long as fourth, truncate at apex. Length: 10–11 mm.

*Holotype*, male (No. 5265, Mus. Calif. Acad. Sci., Ent.), *allotype*, female (No. 5266), and nine paratypes, from **fifteen miles north of Punta Prieta**, July 29, all collected at light by Michelbacher and Ross.

This species is related to *E. sordida* (LeConte), but differs in the more slender and very acute lateral spines of the pronotum, shorter antennal scape which falls far short of the base of the pronotal tubercle, the darker integument, and the uniform, pale pubescence which does not obscure the surface.

(110) **Estola tigrina** (Skinner)

(Plate 5, fig. 1)

*Lypsimena tigrina* SKINNER, 1905, Ent. News, 16: 291.

*Estola tigrina*, SCHAEFFER, 1908, Mus. Brooklyn Inst. Arts Sci., Bull. 1: 331 (list); KNULL, 1937, Ohio Jour. Sci., 37: 308 (record)?

*Estola picta* SCHAEFFER, 1906, Can. Ent., 38: 21.

It can hardly be said that this species has been described. Skinner gave no structural characters, the inference being that its structure was that of the genus *Lypsimena*, since he placed it there without comment. Schaeffer (1906) mentioned one or two structures of generic importance, but again gave none of its specific characters other than the elytral pattern to which Skinner had confined his remarks. The following description is based on a female taken by Michelbacher and Ross.

Female: Form elongate, moderately robust, somewhat flattened; color reddish-brown and black; vestiture grayish and black. *Head* finely punctured, except middle of vertex which is polished, glabrous, impunctate; pubescence moderately dense, fine, grayish-white, prostrate, not obscuring the surface; antennae a little longer than the body, segments finely, densely punctured and pubescent, scape subconical, clothed with white pubescence variegated with black, segments two to ten annulated with black at apex, second segment one and one-half times as long as broad, third segment nearly four times as long as second, fourth barely longer than third, remaining segments gradually decreasing in length toward apex; eyes moderately coarsely granulated, lower lobe narrower than vertical width. *Pronotum* transverse; lateral tubercles obtuse; integument reddish brown with a dense, oval, black spot on each side of disk, a similar spot on each lateral tubercle, and an ill defined spot medially on posterior disk; pubescence fine, prostrate, white except on the black integumental spots where it is black; surface finely, closely punctured with numerous coarse punctures superimposed, these latter mostly less than one puncture width apart; scutellum rounded behind, white pubescent; prosternum finely punctured and clothed with prostrate white hairs; mesosternum rather prominent, abruptly declivous. *Elytra* finely, closely punctured with coarse punctures superimposed, the latter larger and closer basally where they are mostly from one to two puncture widths apart, smaller sparser apically where they are several widths apart; integument reddish brown with irregularly, more or less longitudinal, black markings in four transverse rows, one basal, one ante-median, one post-median, one subapical, the ante- and post-median rows tending to become transversely confluent; pubescence whitish on paler areas, black on dark areas; apices rounded or feebly truncate. *Legs* finely punctured, clothed with white pubescence except for a few oval black spots; posterior tarsi with first segment about one and one-third times as long as second. *Abdomen* with sternites reddish at middle and along apical margin, black basally and laterally, finely closely punctured, clothed with white, prostrate hairs. Length: 9 mm.

Type locality: Carr Canyon, Huachuca Mts., Arizona<sup>1</sup>.

Recorded distribution: southern Texas<sup>1</sup>, Arizona.

New record: 5 miles south of Miraflores, July 10.

Host: *Cercidium*<sup>2</sup>.

This species belongs in a different group from the two preceding, characterized by the more elongate, less robust form, narrow lower lobe of the



eyes, and the less sloping mesosternum. Its assignment to *Estola*, however, needs further confirmation.

(111) ***Ecyrus pacificus*** Linsley, new species

Male: Form robust; color black; vestiture variegated, grayish, whitish, brownish, and black. *Head* finely punctured, pubescence mottled gray and brown, upper frons bituberculate, the tubercles clothed with short, dense, black hairs; antennae about one and one-fourth times as long as the body, segments narrowly annulated with white at base, scape moderately robust, finely, closely punctured. *Pronotum* wider than long, about equally wide at base and apex, sides feebly bituberculate; surface finely punctured, the pubescence mottled, grayish, white, and brownish, anterior margin bituberculate, the tubercles clothed with short, dense, black hairs. *Elytra* less than two and one-half times as long as basal width, sides parallel to apical one-third, thence rounded to apices; surface rough, finely punctured with coarse punctures superimposed, almost completely hidden by the dense pubescence; pubescence gray and brownish except for a well defined, oblique, median white band, an indistinct, subapical white patch, and a small patch at base about scutellum, black hairs at base practically confined to basal tubercles, not in the form of a dense, arcuate, black line; small costal tubercles with a crest of black hairs; apices emarginate. *Legs* finely, densely punctured, moderately densely clothed with prostrate white hairs which are thin in certain spots giving the pubescence a mottled appearance; posterior tarsi with first segment but little longer than the second. *Abdomen* black; sternites finely, closely punctured, moderately densely clothed with long, prostrate, white hairs. Length: 7-8 mm.

*Holotype*, male (No. 5267, Mus. Calif. Acad. Sci., Ent.) from **San Domingo**, July 19, 1938, and one paratype, male (collection of writer), from twenty miles north of Comondu, July 2, 1938. Both examples were captured at light by Michelbacher and Ross.

This is the first species of *Ecyrus* recorded from the Pacific Coast of North America. The others occur along the Atlantic Coast, Gulf of Mexico, and in the West Indies. It is most closely related to *E. arcuatus* Gahan from Yucatan, and *E. texanus* (Schaeffer) from Brownsville, Texas. It differs from both, however, in the heavier antennal scape, emarginate elytral apices, position of the elytral fascia and the absence of the black basal lunule of the elytra. The elytral pattern is most similar to that of *E. arcuatus* but the white band is median rather than ante-median as in that species. The robust form and shape of the pronotum is about as in *texanus*.

(112) ***Poliaenus volitans*** (LeConte)

*Lophopocum volitans* LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 232<sup>1</sup>; HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 340 (record)<sup>2</sup>.

*Pogonocherus volitans*, LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 136;

SCHAEFFER, 1909, Jour. N. Y. Ent. Soc., 17: 103; FALL, 1910, Ent. News, 27: 7; LINSLEY, 1930, Pan-Pac. Ent., 7: 85.

*Poliaenus volitans*, LINSLEY, 1935, Ann. Ent. Soc. Am., 28: 86.

*Poliaenus hirsutus* BATES, 1880, Biol. Centr.-Amer., Coleopt., 5: 120<sup>2</sup>.

I have seen this species only from the Cape Region. In addition to the three specimens taken by Michelbacher and Ross (at light), I have two examples from Santa Rosa (Beyer) sent to me several years ago by Mr. Schaeffer.

Type locality: Cape San Lucas<sup>1</sup>.

Recorded distribution: Guatemala<sup>3</sup>; Lower California: Cape San Lucas<sup>1,2</sup>.

New Records: 5 miles west of San Bartolo, July 13; Santiago, July 8.

### (113) *Poliaenus concolor* (Schaeffer)

*Pogonocherus concolor* SCHAEFFER, 1909, Jour. N. Y. Ent. Soc., 17: 102; FALL, 1910, Ent. News, 21: 9; SCHAEFFER, 1932, Bull. Brooklyn Ent. Soc., 27: 154.<sup>1</sup>

*Poliaenus concolor*, LINSLEY, 1935, Ann. Ent. Soc. Am., 28: 83<sup>2</sup>.

*P. concolor* may be recognized by the uniform yellowish cinereous pubescence, the scarcity of erect hairs on the head and pronotum, and the absence of tufts of black hairs from the costal tubercles.

Type locality: Lower California<sup>1</sup>.

This species was originally described from "California?", but in 1932 Schaeffer corrected that to "Lower California", and later stated to me in a letter that it had undoubtedly come from Santa Rosa. Apparently only the type is known.

### (114) *Poliaenus obliquus* Linsley, new species

(Plate 4, fig. 12)

Male: Form moderately robust, subcylindrical; color black, vestiture gray, white, and black. *Head* finely punctured, clothed with prostrate, grayish hairs, denser and whiter on upper frons between dorsal lobes of eyes, erect hairs sparse on frons, more numerous on lower face and cheeks; antennae about one and one-fourth times as long as body, annulated, densely clothed with long, flying hairs, more numerous on inner side, scape finely punctured, moderately slender, scarcely clavate, attaining lateral pronotal tubercle. *Pronotum* wider than long; lateral tubercles moderately stout, conical, apex obtuse, not reflexed; discal tubercle feeble; surface finely, sparsely punctured, clothed with grayish white, postrate pubescence which does not hide the surface, with a line of thinner pubescence on each side of disk running from base to apex across the discal tubercles and giving the impression of a vague dark line; disk with a short, nude, polished, median vitta; erect hairs white, more numerous at sides. *Elytra* a little more than twice as long as basal width, with a broad, dense band of white pubescence running obliquely from behind the humeri to suture and bounded behind by a narrow black line, remaining surface more sparsely clothed with grayish white hairs, those of elytral declivity vaguely tawny; erect hairs black on disk, white at sides; punctation not obscured by pubescence except for the oblique, white fascia, punctures

fine, close, with coarse punctures superimposed, these latter more numerous basally where they are mostly one or less than one puncture width apart; basal tubercles distinct, clothed with short, black hairs; costae poorly defined, indicated apically by three rows of tubercles each with a tuft of short, black hairs; apices conjointly rounded. *Legs* black, rather densely clothed with prostrate, white pubescence intermixed with long, erect, white hairs; posterior tarsi with first segment shorter than the following two together, clothed beneath with black hairs, second segment with some yellow pile beneath at apex, third segment densely padded with yellow pile. *Abdomen* black, sternites finely, densely punctured, clothed with grayish pubescence with a dense band of white along posterior margins, most obvious at sides of first sternite; fifth sternite rounded at apex. Length 6 mm.

Female: Antennae but little longer than the body; fifth abdominal sternite impressed medially at apex. Length 6 mm.

*Holotype*, male (No. 5268, Mus. Calif. Acad. Sci., Ent.) from **five miles south of San Miguel**, July 20, 1938, and *allotype*, female (No. 5269) from **Triunfo**, July 13, 1938. Both specimens were captured at light by Michelbacher and Ross.

This species must be close to *P. concolor* (Schaeffer), but differs from the descriptions of that species by having grayish and white pubescence with a broad oblique, white fascia margined posteriorly with a black line, rather than uniformly yellowish cinereous, the basal punctation of the elytra coarse and moderately dense, the lateral pronotal tubercles obtuse, the head and pronotum with flying hairs, the costal tubercles of the elytra tufted with black, and the first segment of the posterior tarsi clothed beneath with brown hairs. From *P. volitans* (LeConte), the only other species known from Lower California, it may be easily distinguished by the less slender scape, obtuse pronotal tubercles which are not reflexed at the apex, the gray and white pubescence, and the elytral pattern. Superficially *obliquus* resembles *P. californicus* (Schaeffer) but is less elongate, lacks the post-median dark band, and differs in the feeble dorsal tubercles of the pronotum, weak elytral costae, and slender scape.

#### (115) *Adetus vanduzeei* Linsley

*Adetus vanduzeei* LINSLEY, 1934, Pan-Pac. Ent., 10: 63<sup>1</sup>.

This species may be readily recognized by the short pronotum and the very dense, short, white pubescence, with a pair of tawny spots at the base of the pronotum, middle of the elytra, and before the apex of the elytra. The mid-elytra spots are large and suboval.

Type locality: Cerralbo Island, Gulf of California<sup>1</sup>.

Host: *Ibervillea*<sup>1</sup>.

#### (116) *Tetraopes elegans* Horn

*Tetraopes elegans* HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 404<sup>1</sup>; LENG and HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 159; CASEY, 1913, Mem. Coleopt., 4: 376, 384.

This beautiful species was evidently taken in large numbers by the early Academy expeditions, and I have examined specimens in numerous collections, all from the type locality, distributed by Mr. Carl Fuchs.

*Lectotype*: No. 72, Calif. Acad. Sci., Ent., ♂

Type locality: San José del Cabo<sup>1</sup>.

## APPENDIX A

### Cerambycidae of the Revillagigedo Islands

In May, 1925, the California Academy of Sciences sent an expedition to the Revillagigedo Islands. Three species of Cerambycidae were taken at this time. One of these, *Stenodontes molarius* (Bates) is a widespread Neotropical species occurring in South and Central America and in the Cape Region of Lower California. Another is endemic to the islands but has near relatives in Lower California and along the west coast of Mexico. The third species represents a degenerate, endemic genus in a tribe which is well represented both in the Neotropical and Sonoran faunas. The first two species occur on Socorro Island, about two hundred and fifty miles from coastal Mexico, the last on Clarion Island at a distance of about four hundred miles from the mainland. From these three species alone it would be impossible to generalize on the origin of the fauna of these islands.

#### (1) *Stenodontes (Mallodon) molarius* (Bates)

*Mallodon molarium* BATES, 1879, Biol. Centr.-Amer., Coleopt., 5: 9, pl. 1, f. 10-11. (For further bibliography see section on Lower California fauna).

Several specimens of this widespread neotropical species, taken on the expedition of the California Academy of Sciences in 1925, were misplaced and hence overlooked in a previous report on the Cerambycidae of these islands.

Type locality: "Mexico".

Recorded distribution: South America; Central America; Mexico; Lower California.

New record: Revillagigedo Islands (Grayson Cove, Socorro Island, May 4, 1925, J. R. Slevin, collector).

#### (2) *Nesodes insularis* Linsley

*Nesodes insularis* LINSLEY, 1935, Pan-Pac. Ent., 9: 73, fig.<sup>1</sup>

This peculiar, degenerate species was described from material taken on Clarion Island by Mr. H. H. Keifer. The species resembles certain members of the genus *Anelaphus*, particularly *A. inerme* (Newman), and may have originally been derived from that group. It differs generically, however, in the robust form, enlarged prothorax, shortened and somewhat rounded elytra, reduced hind wings (useless for flight), and the absence of spines from the antennae, elytral apices, or femora.

Type locality: Clarion Island, Revillagigedo Islands<sup>1</sup>.

Host: *Sophria tomentosa* Linn.<sup>1</sup>





(3) *Acanthoderes socorroensis* Linsley, new species

(Plate 5, Fig. 5)

*Acanthoderes peninsularis*, LINSLEY, 1935, Pan-Pac. Ent., 11: 74 (record).

Male: Form short, broad; color brown; vestiture variegated. *Head* coarsely but not closely punctured, interspaces finely punctate, obscured by pubescence except for two denuded areas on vertex; pubescence fine appressed, golden; labrum rufotestaceous, clothed with golden pubescence; genae between eye and base of mandibles about as long as lower lobe of eye; antennae with last three segments surpassing apex of elytra, scape robust, finely punctured and pubescent, remaining segments biannulated, third segment longer than fourth, penultimate segment scarcely excavated beneath, bearing only a few cilia. *Pronotum* transverse, armed with a very large conical tubercle at the sides, surface coarsely, irregularly but not contiguously punctured, interspaces finely punctured, densely clothed with fine, depressed, golden and brownish yellow hairs, midline with a narrow, polished, elevated carina from posterior disk to apex; prosternum finely punctured and pubescent, intercoxal process nearly as wide as that of mesosternum; metasternum short, only about one and one-half times as long as mesosternal process. *Legs* robust, finely punctate, pubescent; tibiae biannulate; posterior tarsi with first segment distinctly longer than following two together. *Elytra* less than one and one-half times as long as broad, sides obtuse, widest at middle; basal area moderately densely, irregularly tuberculate, tubercles polished, black; posterior half of elytra irregularly, coarsely punctured, interspaces finely punctate, finely clothed with golden, pale, and yellowish brown pubescence, with an obscure, pale, oblique fascia extending from behind humeri nearly to suture; elytral apices emarginate. *Abdomen* polished, finely punctate, sparsely pubescent; fifth abdominal sternite emarginate at apex. Length: 12-14.5 mm.

Female: Antennae barely surpassing apex of elytra; fifth abdominal sternite narrowed apically, subtruncate. Length: 12-17 mm.

*Holotype*, male (No. 5270, Mus. Calif. Acad. Sci., Ent.), *allotype*, female (No. 5271), and seven paratypes, collected at **Grayson Cove, Socorro Island**, May 4, 1925, collected by Mr. H. H. Keifer. The specimens were reared from *Hippomane mancinella*.

This species was incorrectly recorded by the writer (1935) as *Acanthoderes peninsularis* Horn. It differs from the latter in its shorter, more obtuse form, more widely separated anterior coxae, short mesosternum, and short elytra which are less than one and one-half times as long as broad and widest at middle. In addition the genae are as long as the lower lobe of the eye, the pronotal punctures are not contiguous, and the penultimate segment of the male antennae is scarcely excavated beneath and sparsely ciliate.

It is very probable that this species, as well as the preceding, is endemic to the Revillagigedo Islands.

## APPENDIX B

## Cerambycidae of the Tres Marias Islands

Fifteen species are now known from the Tres Marias Islands. The earliest records of which I am aware which pertain to the Cerambycidae of these islands are to be found in the supplement to the Longicornia volume of the Biologia Centrali-Americana (Bates, 1885). In this publication seven species are recorded and the islands serve as type locality for two of these. The Academy expeditions have added eight more species, three of which were new (Linsley, 1934). As would be expected from their nearness to the Mexican mainland, the Tres Marias have apparently received their cerambycid fauna almost entirely from that source. However, the fauna of the adjacent mainland is not well enough known at present to judge whether or not any of the Tres Marias cerambycids are endemic to the islands.

(1) **Stenodontes (Mallodon) masticator** (Thomson)

*Mallodon masticator* THOMSON, 1867, Physis, 1: 99<sup>1</sup>.

*Stenodontes (Mallodon) dasytomis masticator*, LAMEERE, 1902, Mém. Soc. Ent. Belg., 9: 78.

*Stenodontes (Mallodon) masticator*, LINSLEY, 1934, Ent. News, 45: 161<sup>2</sup>.

*Mallodon angustum* THOMSON, 1867, Physis, 1: 100<sup>3</sup>; BATES, 1879, Biol. Centr.-Amer., Coleopt., 5: 9; BATES, 1884, Biol. Centr. Amer., Coleopt., 5: 296 (record)<sup>4</sup>.

This species is related to *Stenodontes (Mallodon) dasytomis* (Say), but may be separated by the tridentate genae and sculpture of the pronotum which is more finely punctured and has the glabrous areas reduced and completely separated.

Type locality: Colombia<sup>1</sup>.

Recorded distribution: South America: from Colombia and Venezuela northward; Central America; Mexico<sup>3</sup>: Tres Marias Islands<sup>4</sup>; Arizona<sup>2</sup>.

(2) **Smodicum pacificum pacificum** Linsley

*Smodicum pacificum* LINSLEY, 1934, Pan-Pac. Ent., 10: 107<sup>1</sup>.

*Smodicum pacificum* is related to *S. parandroides* Bates from Vera Cruz and Guatemala, but differs in the shape of the pronotum which is widest at or behind the middle, the plane, scarcely impressed vertex of the head, and the finer, sparser punctation. From *S. cucujiforme* Say, which occurs along the Atlantic Coast from Canada to Texas, it may be distinguished by the short second segment of the antennae which is wider than long, the broad pro- and mesosterna with their intercoxal processes as wide as or wider than the coxae, and the finer, sparser punctation. The typical form also differs from *cucujiforme* in the strongly, obliquely narrowed neck, but in the subspecies taken by Michelbacher and Ross in the Cape Region of Lower California, the neck is subparallel or feebly narrowed.

Type locality: Magdalena Island, Tres Marias<sup>1</sup>.

(3) **Eburia nigrovittata** Bates

*Eburia nigrovittata* BATES, 1884, Biol. Centr.-Amer., Coleopt., 5: 246<sup>1</sup>; LINSLEY, 1935, Trans. Am. Ent. Soc., 61: 73 (record)<sup>2</sup>.

*Eburia conspersa* HORN, 1894, Proc. Calif. Acad. Sci., (2) 4: 339<sup>3</sup>; HAMILTON, 1896, Trans. Am. Ent. Soc., 23: 166.

The synonymy, distribution, and variation of this species have been discussed in the preceding pages.

Type locality: Tres Marias Islands<sup>1</sup>.

Recorded distribution: Mexico: Tres Marias Islands<sup>1</sup>, District of Temescaltepec<sup>2</sup>; Lower California<sup>3</sup>.

(4) **Eburia stigmatica** Chevrolat

*Eburia stigmatica* CHEVROLAT, 1834, Coleopt. Mex., 3: 60<sup>1</sup>; BATES, 1884, Biol. Centr.-Amer., Coleopt., 5: 244; LENG, 1885, Entom. Amer., 1: 28; LINSLEY, 1934, Pan-Pac. Ent., 10: 108<sup>2</sup>.

*Eburia perforata* LeCONTE, 1873, Smithson. Misc. Coll., XI, 264: 180<sup>3</sup>.

This species was described as having the elytral apices "épineuses près de l'extrémité de la marge, tronquées sur la suture" and on the basis of this statement LeConte described *E. perforata*. Bates, however, claims that Chevrolat either "made a mistake in his description or had a mutilated specimen before him". In the only example that I have seen from the Tres Marias Islands, the sutural spine is shorter than usual and the outer angle is merely dentiform.

Type locality: Zimapan, Mexico<sup>1</sup>.

Recorded distribution: Texas<sup>3</sup>; central and northern Mexico; Tres Marias Islands: Magdalena Island<sup>2</sup>.

(5) **Eustromula keiferi** Linsley

*Eustromula keiferi* LINSLEY, 1934, Pan-Pac. Ent., 10: 108<sup>1</sup>.

This species is related to *E. validum* (LeConte), but may be distinguished by the long, dense pubescence covering the entire body and the very coarsely punctured metasternum.

Type locality: Maria Madre Island, Tres Marias<sup>1</sup>.

(6) **Elaphidion irroratum** (Linnaeus)

*Cerambyx irroratus* LINNAEUS, 1767, Syst. Nat., ed. XII, p. 633<sup>1</sup>; DRURY, 1773, Ill. Exot. Ins., 1: 93, pl. 41, f. 3; OLIVIER, 1790, Enc. méth. Ins., 5: 305; OLIVIER, 1795, Entomologie, 4: 45, pl. 21, f. 163.

*Stenocorus irroratus*, FABRICIUS, 1775, Syst. Ent., p. 180.

*Elaphidion irroratum*, LeCONTE, 1850, Jour. Acad. Nat. Sci. Phila., (2) 2: 13; JACQUELIN DU VAL, 1857, Hist. Cuba, Ins., p. 266, pl. 10, f. 7; HUBBARD, 1880, Amer. Entom., 3: 239 (record)<sup>2</sup>; BATES, 1884, Biol. Centr.-Amer., Coleopt., 5: 284 (record)<sup>3</sup>; LENG, 1885, Entom. Amer., 1: 31; SCHWARZ, 1888, Proc. Ent. Soc. Wash., 1: 93 (record)<sup>4</sup>; GAHAN, 1895, Trans. Ent. Soc. Lond., 1895: 99; LINSLEY, 1934, Pan-Pac. Ent., 10: 108 (record)<sup>5</sup>.  
*Cerambyx bidens* OLIVIER, 1790, Enc. méth. Ins., 5: 306; OLIVIER, 1795, Entomologie, 4: 42, pl. 17, f. 125.

*Elaphidion ordinatum* NEWMAN, 1840, Entomologist, 1: 26.

*Elaphidion tessellatum* NEWMAN, 1840, Entomologist, 1: 26.

This tropical and subtropical species bores in the various species of mangrove. The amount of white pubescence on the dorsal surface varies and in one example from the Tres Marias Islands it is almost unbroken.

Type locality: North America.

Recorded distribution: Florida; West Indies; Central America; Mexico: Tres Marias<sup>3</sup>; Maria Madre Island<sup>2</sup>.

Hosts: *Avicennia nitida*<sup>2</sup>, *Laguncularia racemosa*<sup>4</sup>.

#### (7) *Anelaphus truncatus* (Haldeman)

*Elaphidion truncatum* HALDEMAN, 1847, Trans. Am. Philos. Soc., (2) 10: 33<sup>1</sup>; LECONTE, 1873, Smithson. Misc. Coll., XI, 264: 183<sup>2</sup>; LENG, 1885, Entom. Amer., 1: 31.

*Hypermallus truncatus*, BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 249 (record)<sup>3</sup>.

*Anoplium truncatum*, CASEY, 1912, Mem. Coleopt., 3: 305.

*Anelaphus truncatus*, LINSLEY, 1936, Ann. Ent. Soc. Am., 29: 465.

There are several species from various localities in Mexico masquerading under the name "*truncatum* Haldeman". I have not seen any of this group from the Tres Marias, and am therefore unable to determine whether or not the record given by Bates was based on the true *truncatum* of Haldeman.

Type locality: Mexico<sup>1</sup>.

Recorded distribution: Texas<sup>2</sup>; northern Mexico; Tres Marias Islands<sup>2</sup>.

#### (8) *Anoplium nanulum* Casey

*Anoplium nanulum* CASEY, 1924, Mem. Coleopt., 11: 247<sup>1</sup>; LINSLEY, 1938, Ann. Ent. Soc. Am., 39: 467<sup>2</sup>.

A single example of *A. nanulum* Casey was taken on Maria Madre Island, Tres Marias, on May 17, 1925, by Mr. H. H. Keifer (C.A.S.). The pronotal sculpture in this species resembles that of the genus *Anopliomorpha*, but the pubescence is short and the antennal spines obsolete.

Type locality: "Arizona (near Tucson)".

Recorded distribution: Arizona: near Tucson<sup>1</sup>, Chiricahua Mts.<sup>2</sup>

#### (9) *Anopliomorpha reticollis* (Bates)

*Periboeum reticolle* BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 254<sup>1</sup>, pl. 18, f. 6.

*Anoplium reticolle*, LENG, 1920, Catal. Coleopt. N. Am., p. 270; LINSLEY, 1934, Pan-Pac. Ent., 10: 109 (record)<sup>2</sup>.

*Anopliomorpha reticollis*, LINSLEY, 1935, Ann. Ent. Soc. Am., 29: 466.

This species bears a superficial resemblance to the preceding, but differs in the strong antennal spines, narrower pronotum, and the coarse, long, erect hairs covering the entire body.

Type locality: Ventanas, Mexico<sup>1</sup>.

Recorded distribution: Mexico: Ventanas<sup>1</sup>; Tres Marias Islands<sup>1</sup>: Maria Madre Island<sup>2</sup>.



(10) *Ironeus pulcher* Bates

*Ironeus pulcher* BATES, 1880, Biol. Centr.-Amer., Coleopt., 5: 29<sup>1</sup>, pl. 4, f. 3; LINSLEY, 1934, Pan-Pac. Ent. 10: 109 (record)<sup>2</sup>.

The three Batesian species of *Ironeus* may not be strictly congeneric. The present species may be readily known by the prominent, coarsely faceted eyes and the tomentose elytra which have the suture and three narrow vittae denuded.

Type locality: Chontales, Nicaragua<sup>1</sup>.

Recorded distribution: Nicaragua<sup>1</sup>; Mexico: Tres Marias: Magdalena Island<sup>2</sup>.

(11) *Neoclytus augusti* (Chevrolat)

*Clytus Augusti* CHEVROLAT, 1835, Coleopt. Mex., 4: 73<sup>1</sup>; CASTELNAU and GORY, 1836, Mon.

Gen. Clytus, p. 30, pl. 7, f. 37; WHITE, 1855, Catal. Coleopt. Brit. Mus., 8: 258.

*Clytus (Rhopalomerus) Augusti*, CHEVROLAT, 1860, Ann. Ent. Soc. France, (3) 8: 495.

*Neoclytus Augusti*, BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 301 (record)<sup>2</sup>.

This attractive species, named in honor of the early collector M. Auguste Salle, was recorded from the Tres Marias Islands by Bates.

Type locality: Vera Cruz, Mexico<sup>1</sup>.

Recorded distribution: central and southern Mexico; Tres Marias Islands<sup>2</sup>.

(12) *Cleozona rufipes* (Bates)

*Cleozona pulchra* var. *rufipes* BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 307<sup>1</sup>.

*Cleozona rufipes*, LINSLEY, 1934, Pan-Pac. Ent., 10: 109<sup>2</sup>; LINSLEY, 1935, Trans. Am. Ent. Soc., 51: 89<sup>2</sup>.

This species differs from *C. pulchra* Bates, its only known congener, in its larger size, more slender form, more widely separated eburneous fasciae, broader, transverse red band of the elytra, and by usually having all of the legs red and clothed with prostrate white pubescence.

Type locality: Ventanas, Mexico<sup>1</sup>.

Recorded distribution: Mexico: Ventanas<sup>1</sup>, Tejupilco<sup>3</sup>, Tehuantepec<sup>1</sup>; Tres Marias: Maria Madre Island<sup>2</sup>.

(13) *Trachyderes spinicollis* Bates

*Trachyderes spinicollis* BATES, 1885, Biol. Centr.-Amer., Coleopt., 5: 332<sup>1</sup>.

I have not seen this species. According to its author it is related to *T. reichei* (Dupont) and *T. cingulatus* (Klug).

Type locality: Tres Marias Islands<sup>1</sup>.

(14) *Lagochirus obsoletus* Thomson

*Lagochirus obsoletus* THOMSON, 1860, Class. Ceramb., p. 10<sup>1</sup>; LINSLEY, 1934, Pan-Pac. Ent., 10: 109 (record)<sup>2</sup>.

*Lagochirus obsoletus*, BATES, 1880, Biol. Centr.-Amer., Coleopt., 5: 145; GAHAN, 1895, Trans. Ent. Soc. Lond., 1895: 130 (syn.)<sup>3</sup>.

*Lagochirus longipennis* BATES, 1880, Biol. Centr.-Amer., Coleopt., 5: 145, pl. 14, f. 2.

This rather common neotropical species has apparently been spread by commerce and has been recorded from the Loo Choo<sup>3</sup> and Hawaiian<sup>3</sup> island groups in addition to the regions listed below.

Type locality: Mexico<sup>1</sup>.

Recorded distribution: Central America; Mexico; West Indies<sup>3</sup>; Tres Marias Islands: Maria Madre<sup>2</sup>.

(15) **Leptostylus plumeoventris** Linsley

*Leptostylus plumeoventris* LINSLEY, 1934, Pan-Pac. Ent., 10: 109<sup>1</sup>.

This species resembles *L. falli* Linsley, from the mountains of southern Arizona, but differs in the form of the lateral tubercles of the pronotum, more numerous tufts of erect setae on the elytra, and in the flaky-white pubescence of the ventral surface.

Type locality: Maria Madre Island, Tres Marias<sup>1</sup>.

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## PLATES



## EXPLANATION OF PLATES

### PLATE 4

(4 times natural size)

- Fig. 1. *Methia debilis* (Horn), ♂
- Fig. 2. Same, ♀
- Fig. 3. *Perigracilia tenuis* Linsley, ♂
- Fig. 4. *Methia picta* Linsley, ♂
- Fig. 5. *Obrium discoideum* LeConte
- Fig. 6. *Rhopalophorella bicincta* (Horn)
- Fig. 7. *Anoplocurius incompletus* Linsley, ♂
- Fig. 8. *Stenosphenus rossi* Linsley, ♀
- Fig. 9. *Eplophorus bicinctus peninsularis* Linsley
- Fig. 10. *Leiopus nivosus* Linsley ♂
- Fig. 11. *Peritapnia fabra* var. ?
- Fig. 12. *Poliaenus obliquus* Linsley

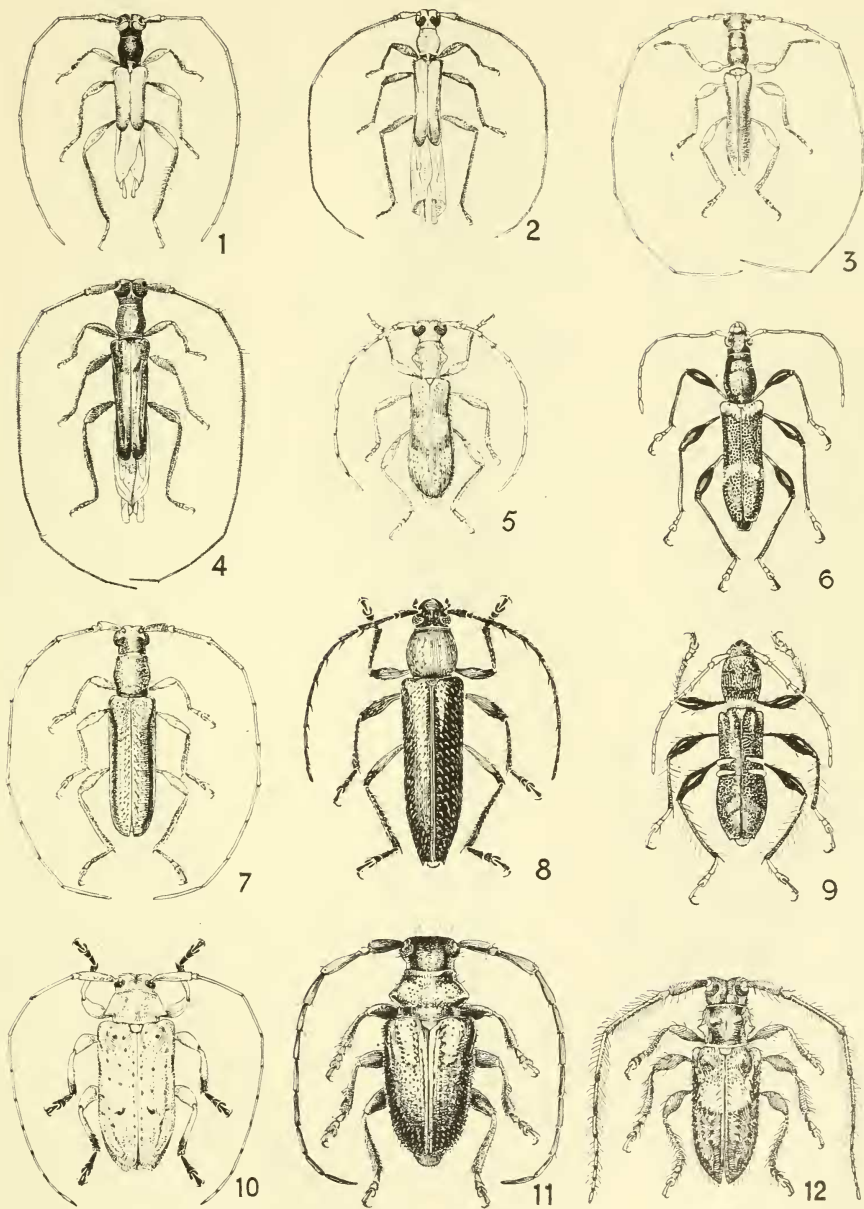


PLATE 5

( $2\frac{1}{2} \times$  natural size)

- Fig. 1. *Estola tigrina* (Skinner)  
Fig. 2. *Estoloides sparsa* Linsley  
Fig. 3. *Estoloides sordida* (LeConte)  
Fig. 4. *Acanthoderes peninsularis* Horn  
Fig. 5. *Acanthoderes socorroensis* Linsley  
Fig. 6. *Crossidius australis* Linsley, ♀  
Fig. 7. *Aneflomorpha australis* Linsley, ♂  
Fig. 8. *Eburia nigrovittata* Bates, ♀  
Fig. 9. *Osmidus guttatus* Lec., ♀

